

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**

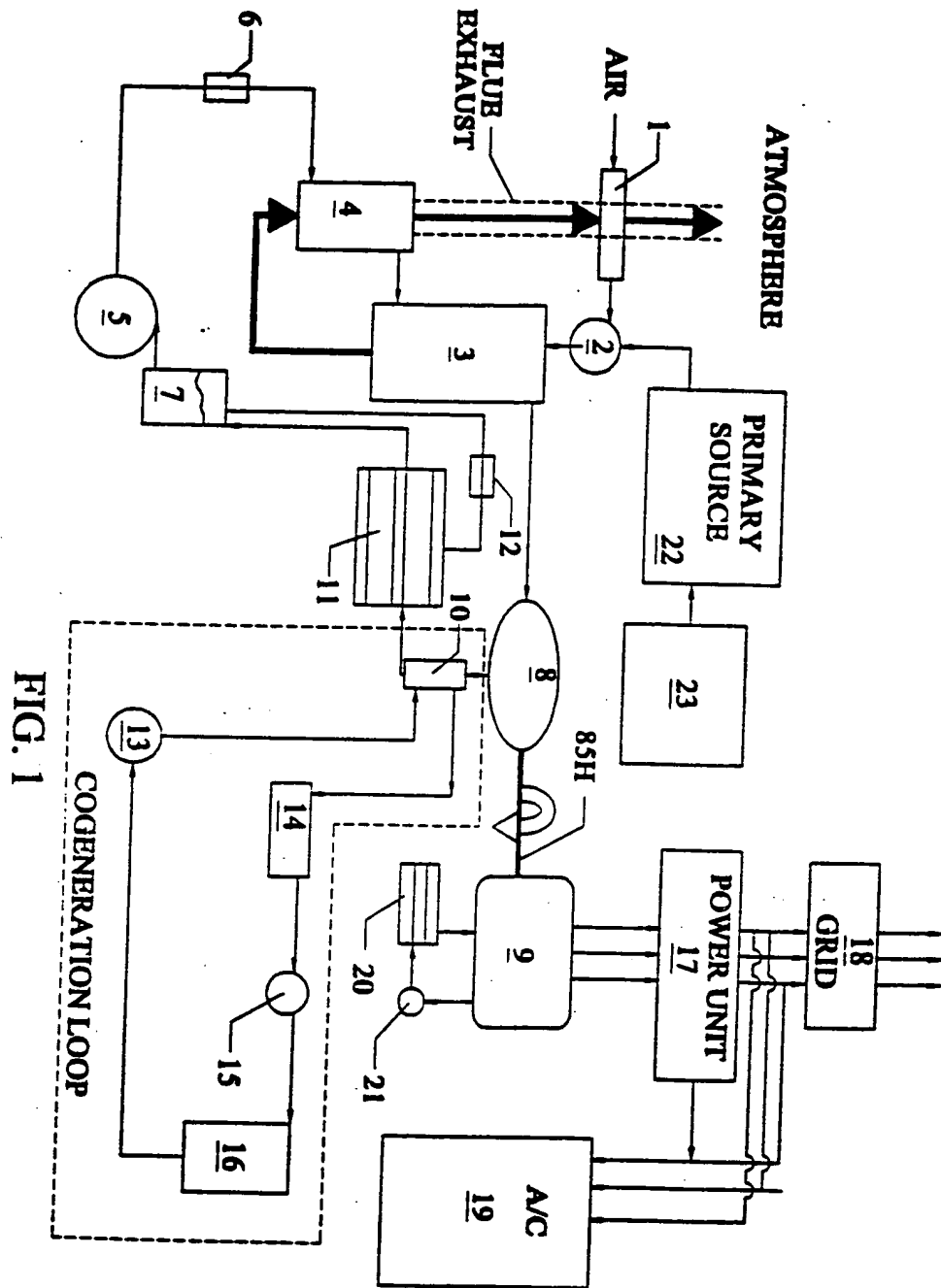


FIG. 1

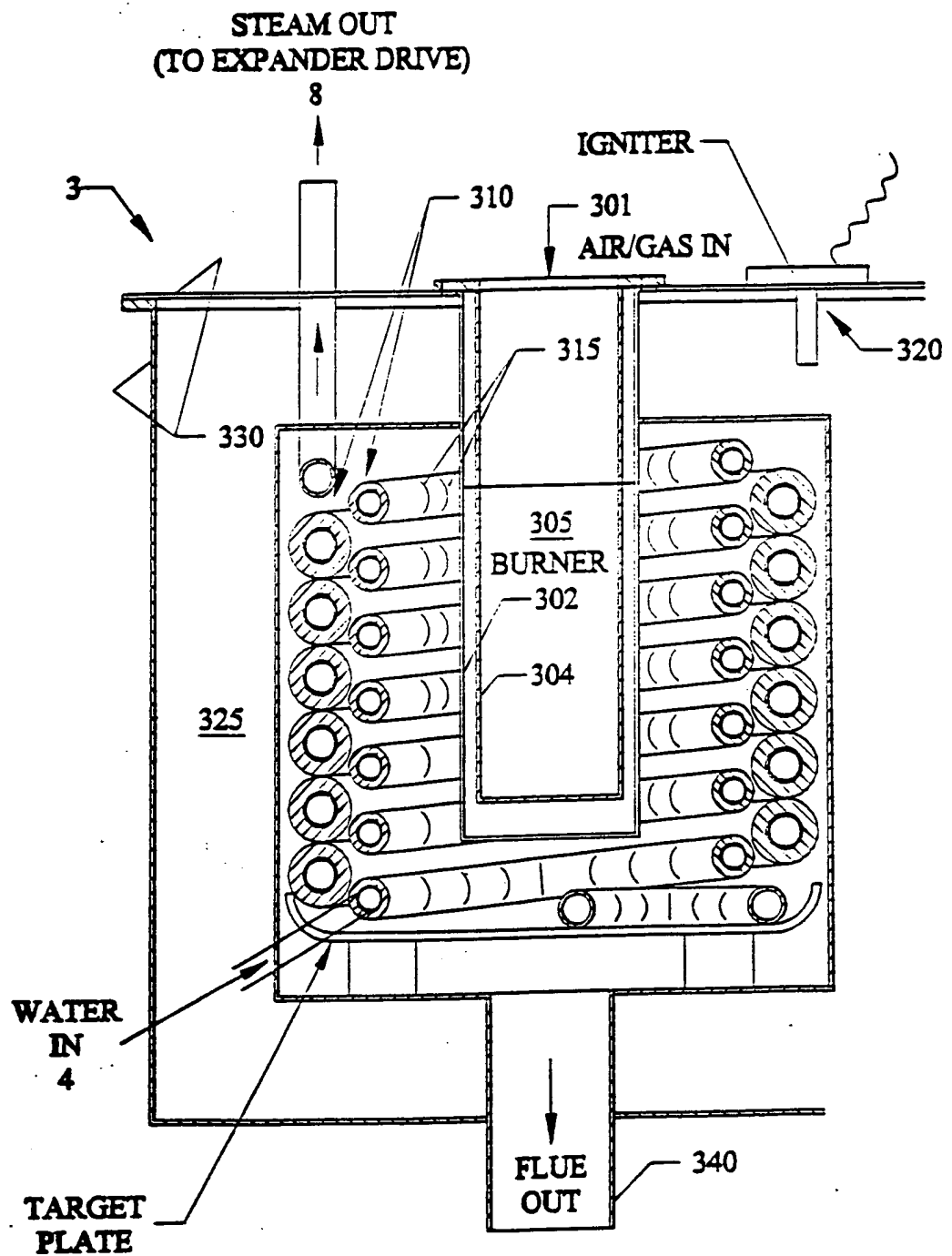


FIG. 2A

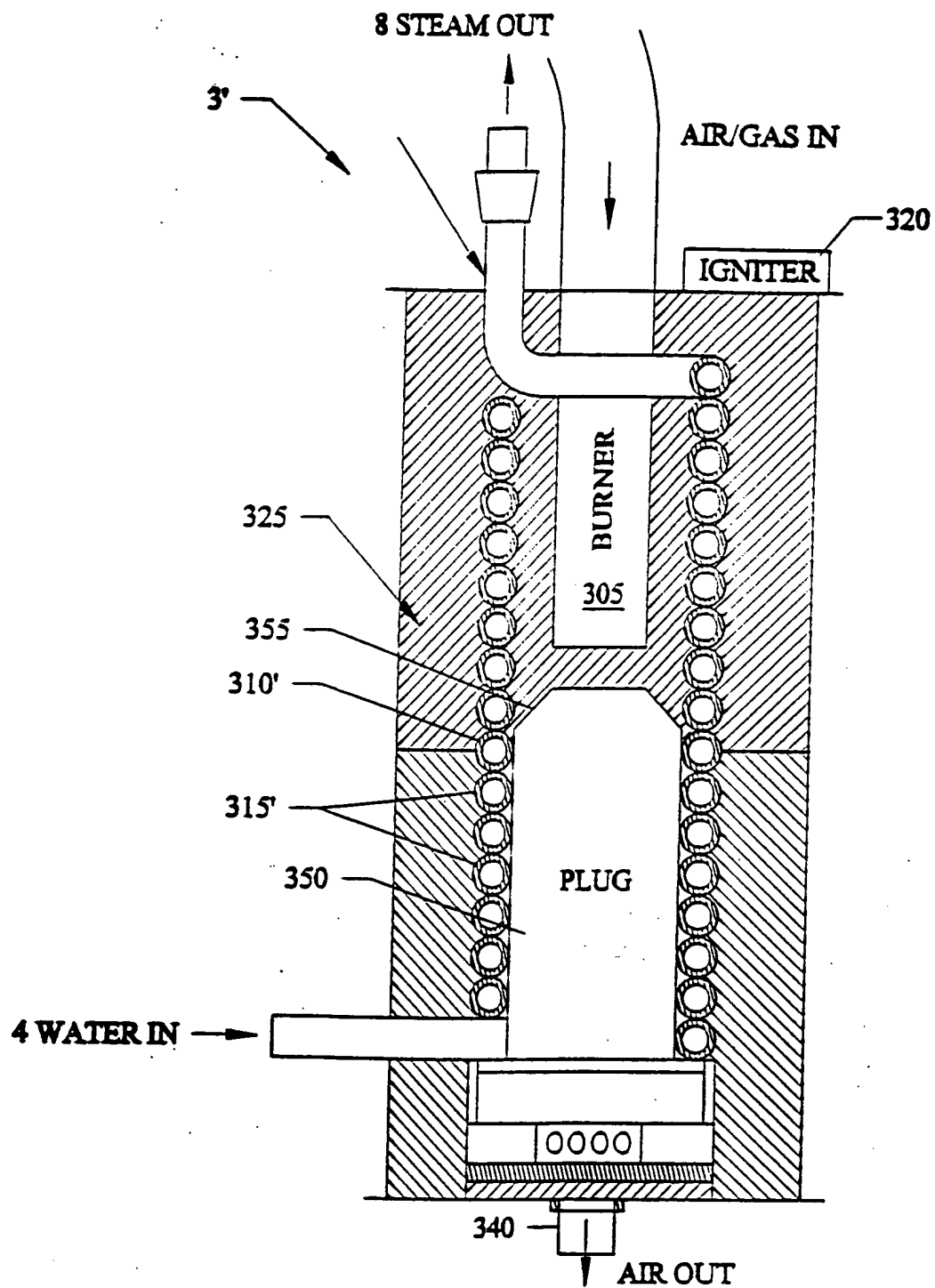


FIG. 2B

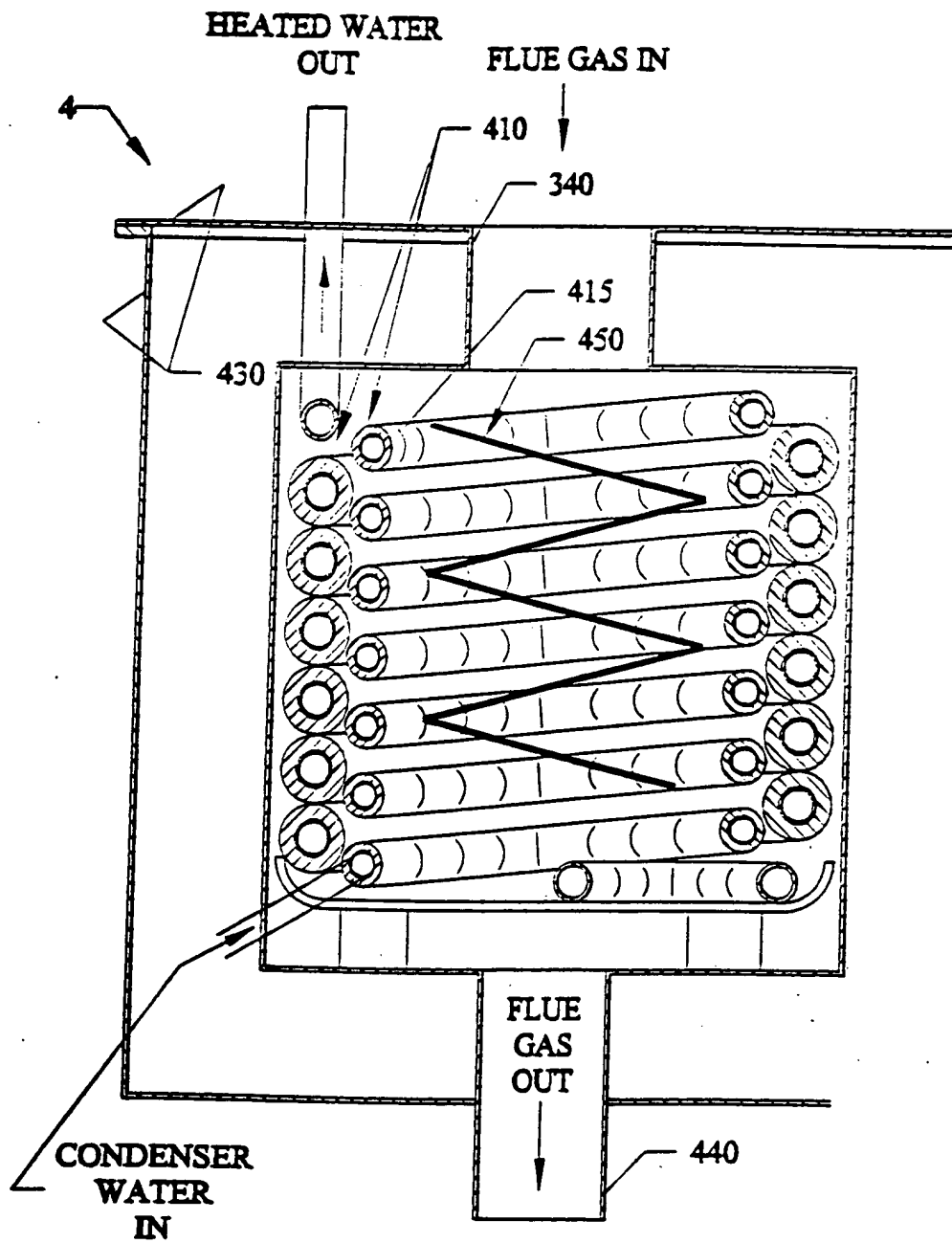


FIG. 3

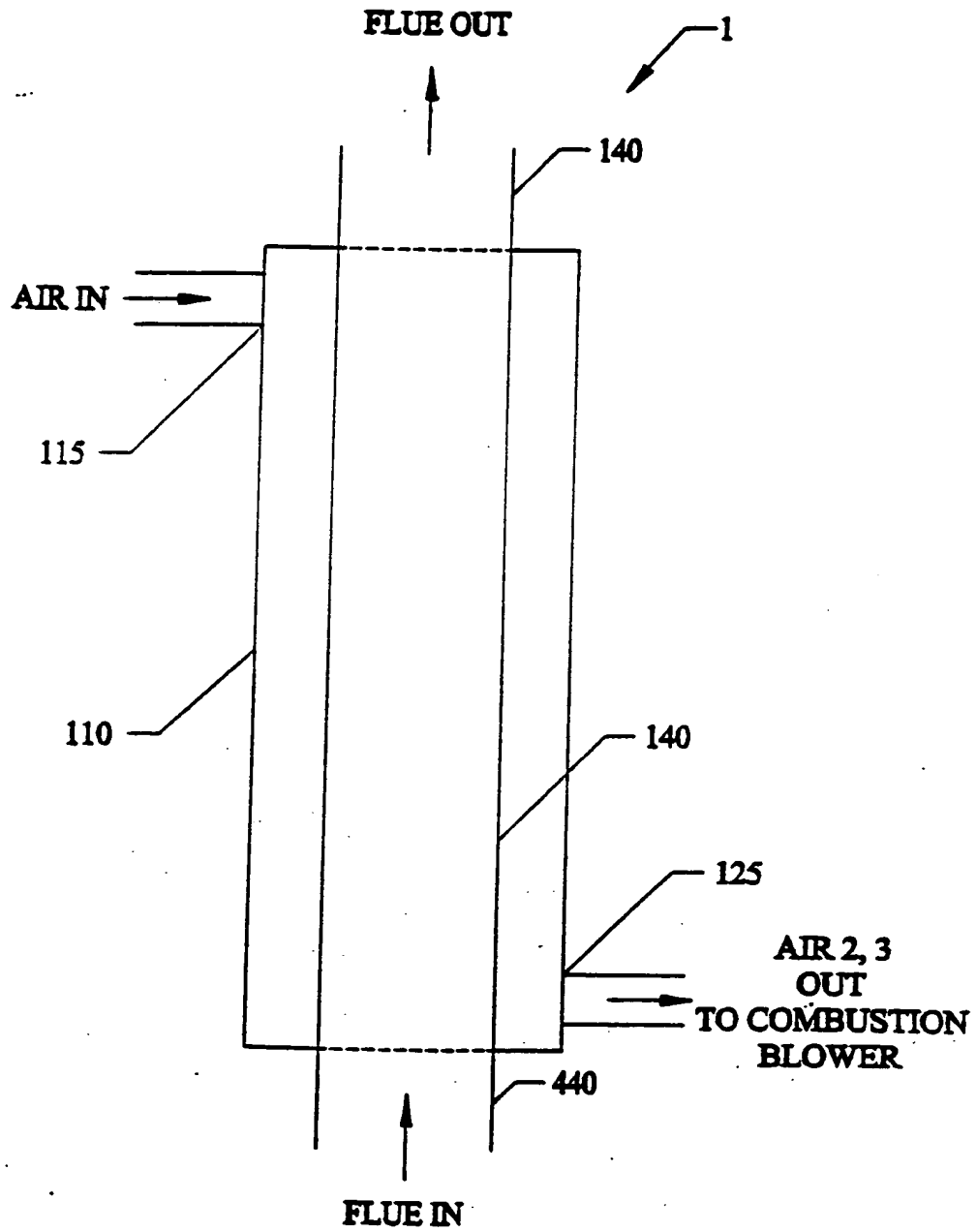


FIG. 4

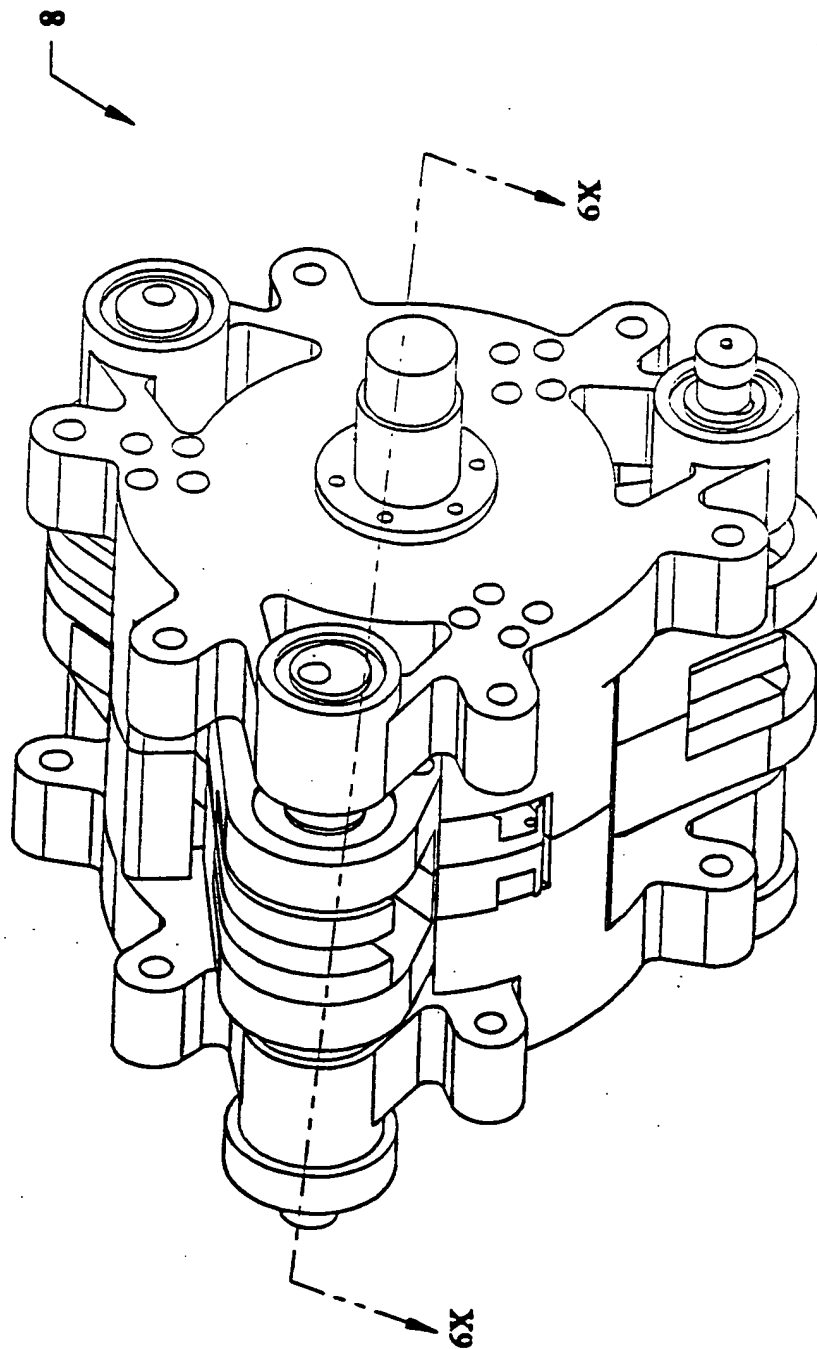


FIG. 5A

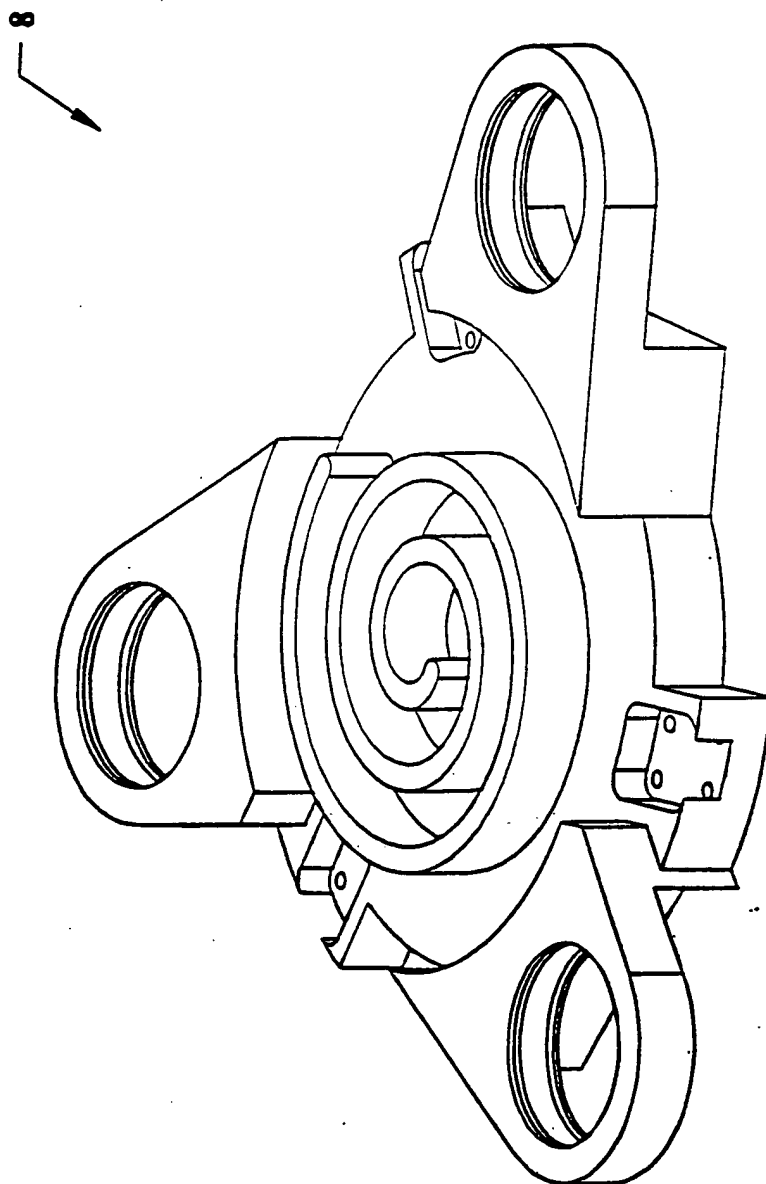
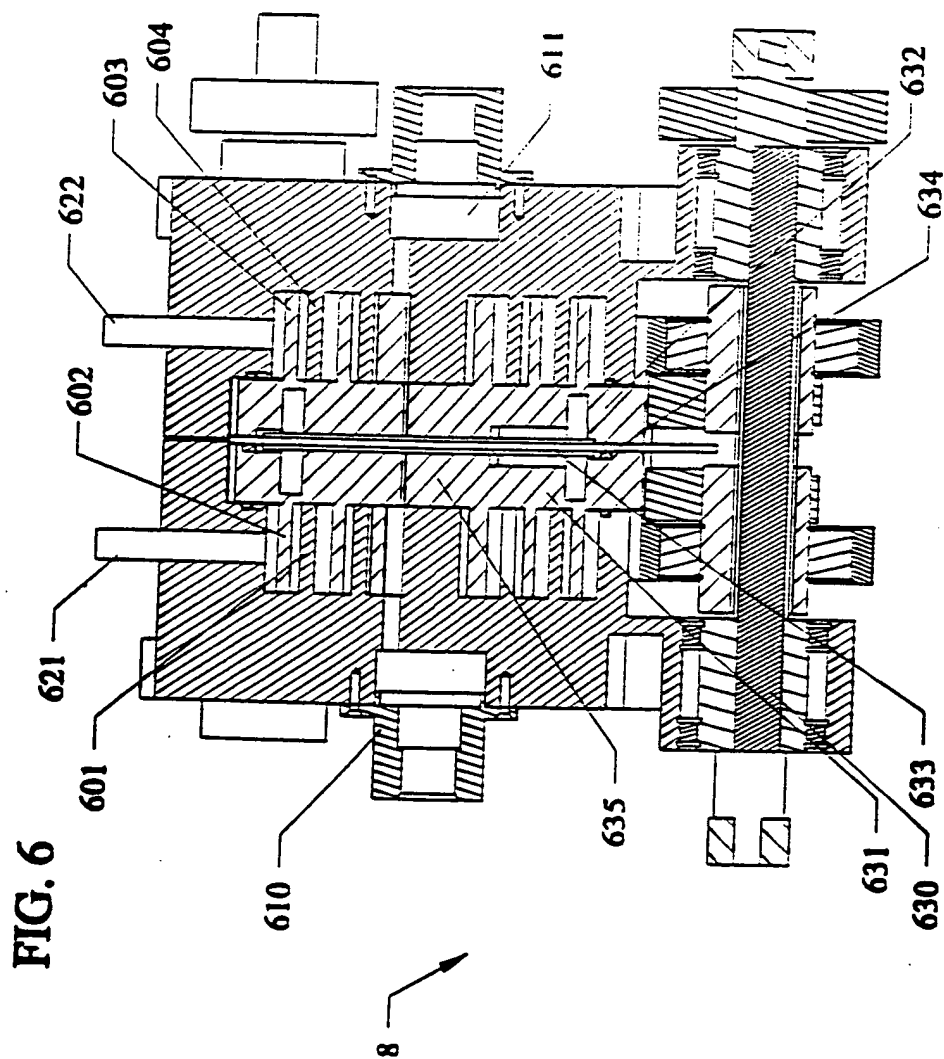


FIG. 5B





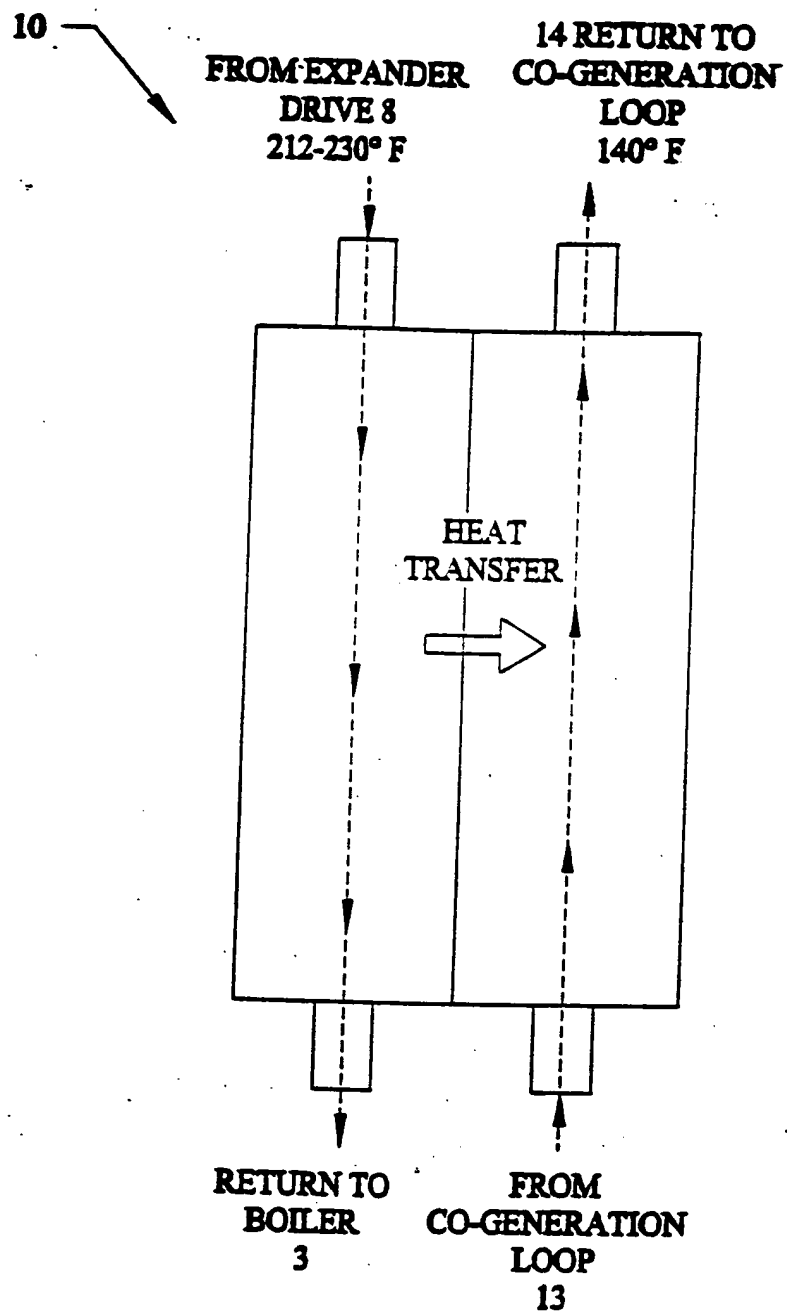
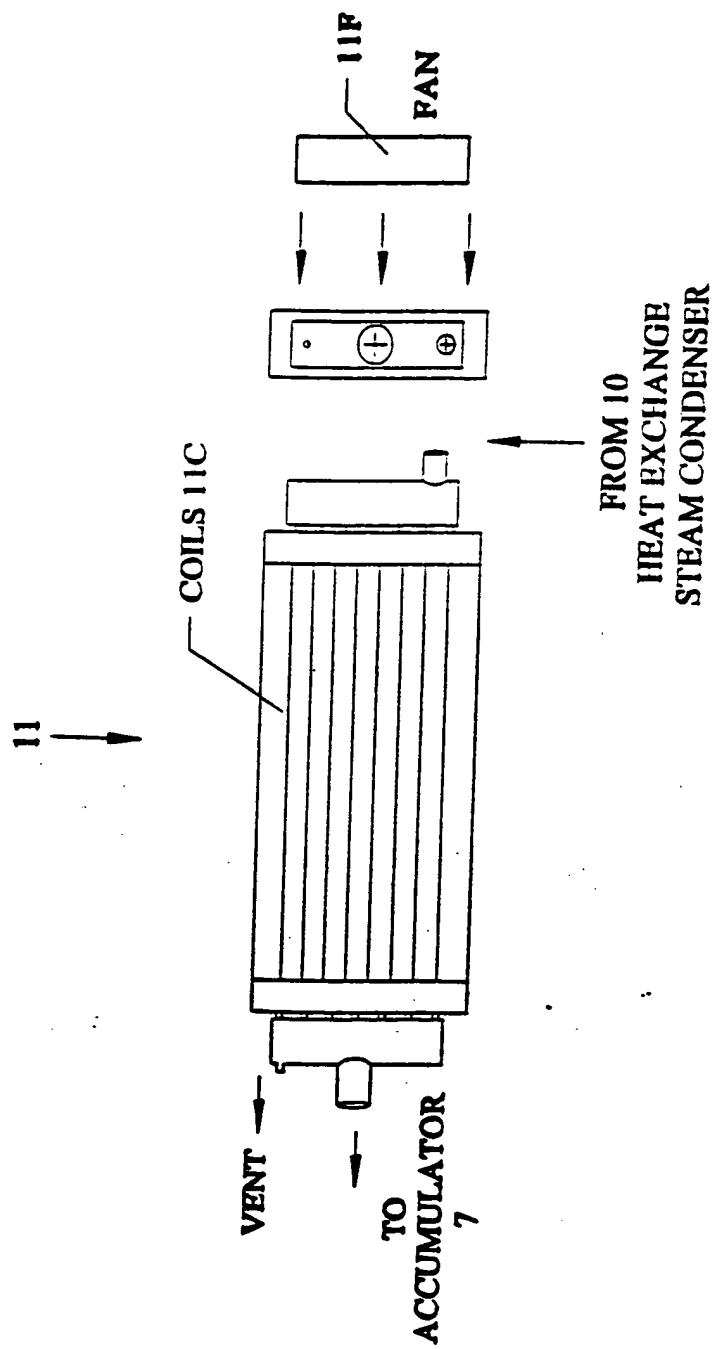


FIG. 7

FIG. 8B

FIG. 8A



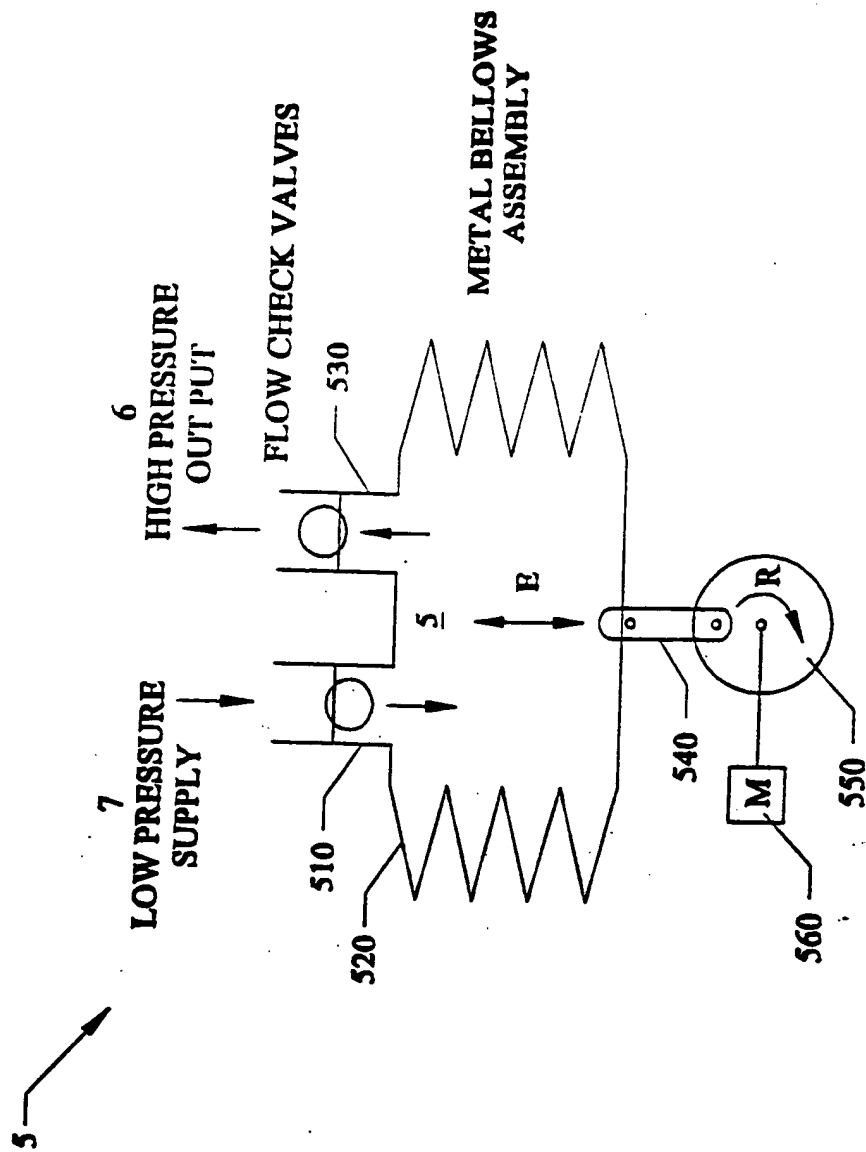


FIG. 9

FIG. 10A

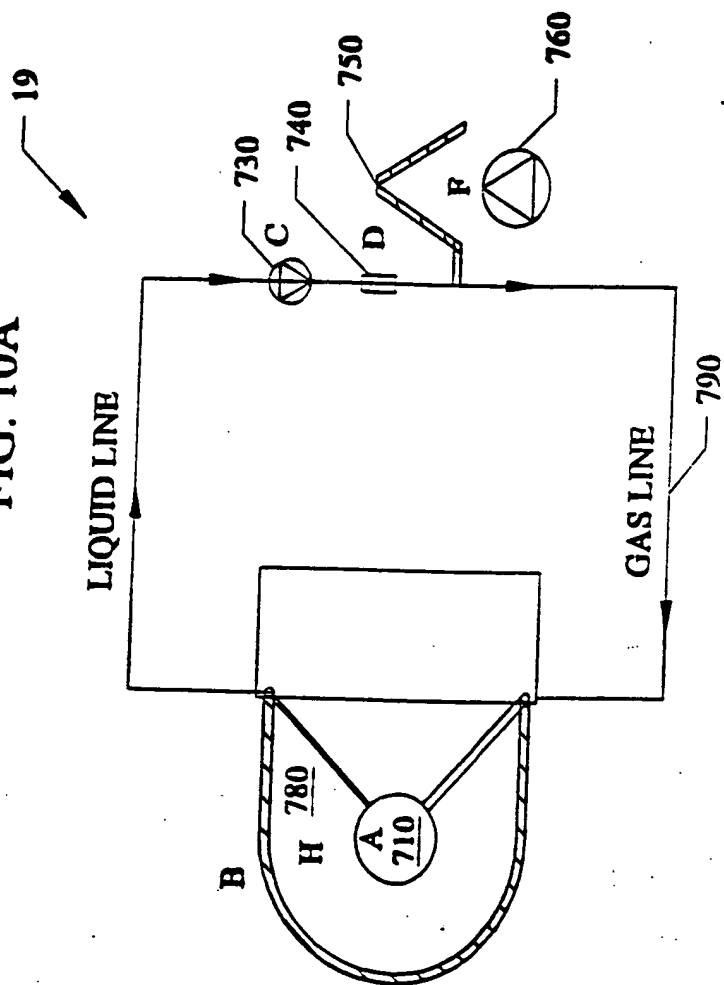
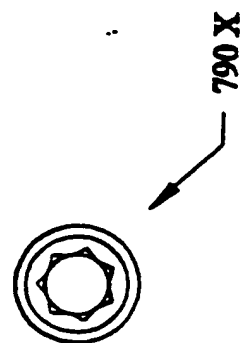


FIG. 10B



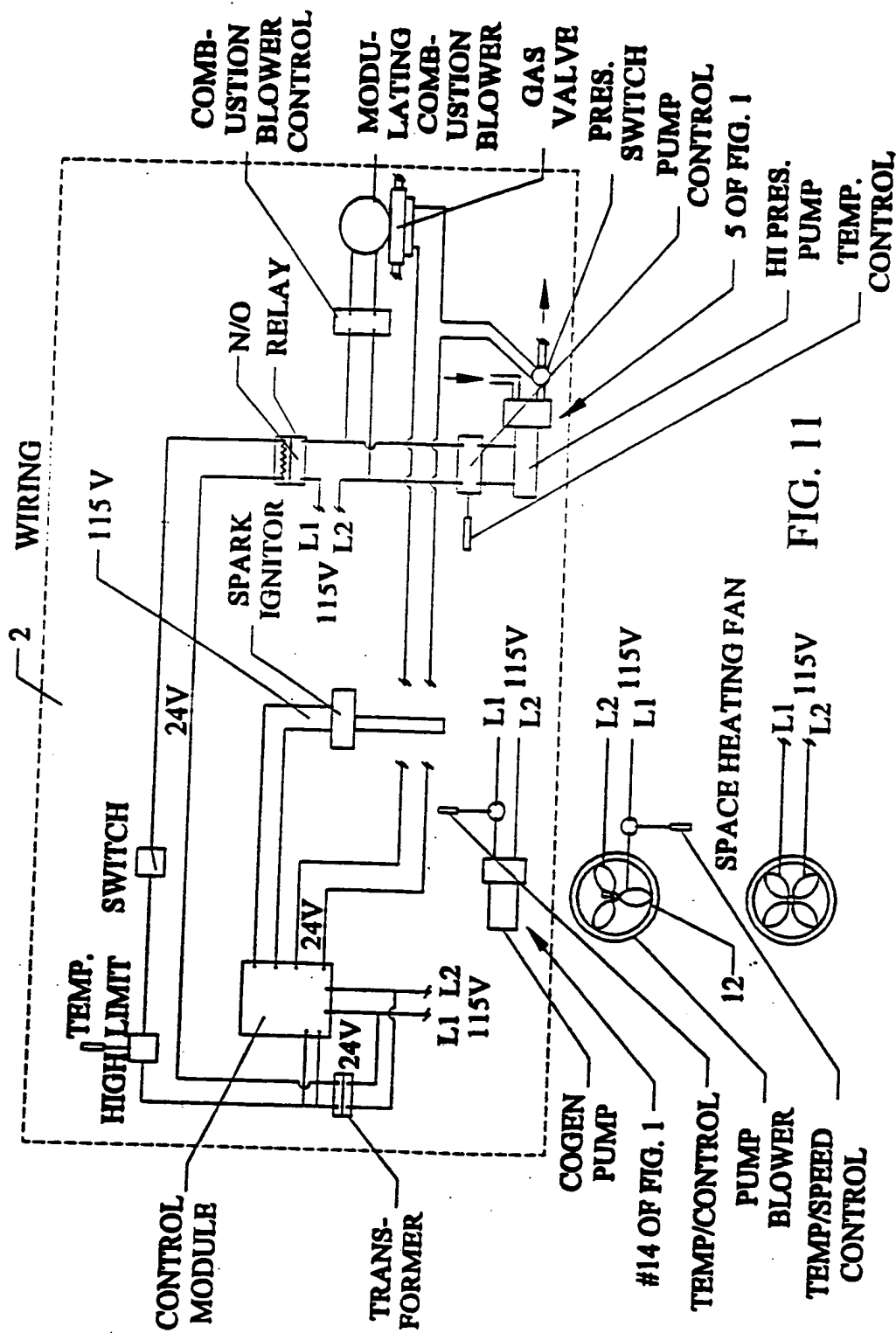


FIG. 11

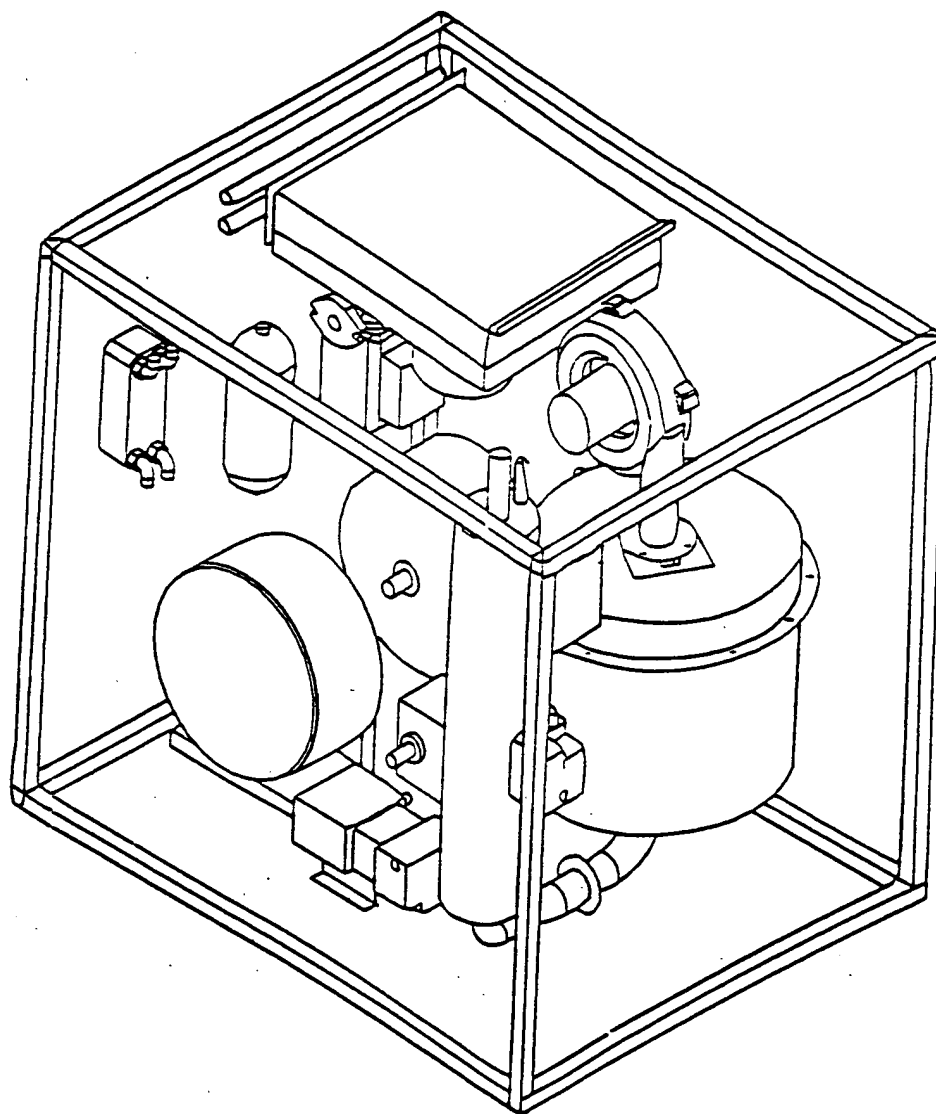
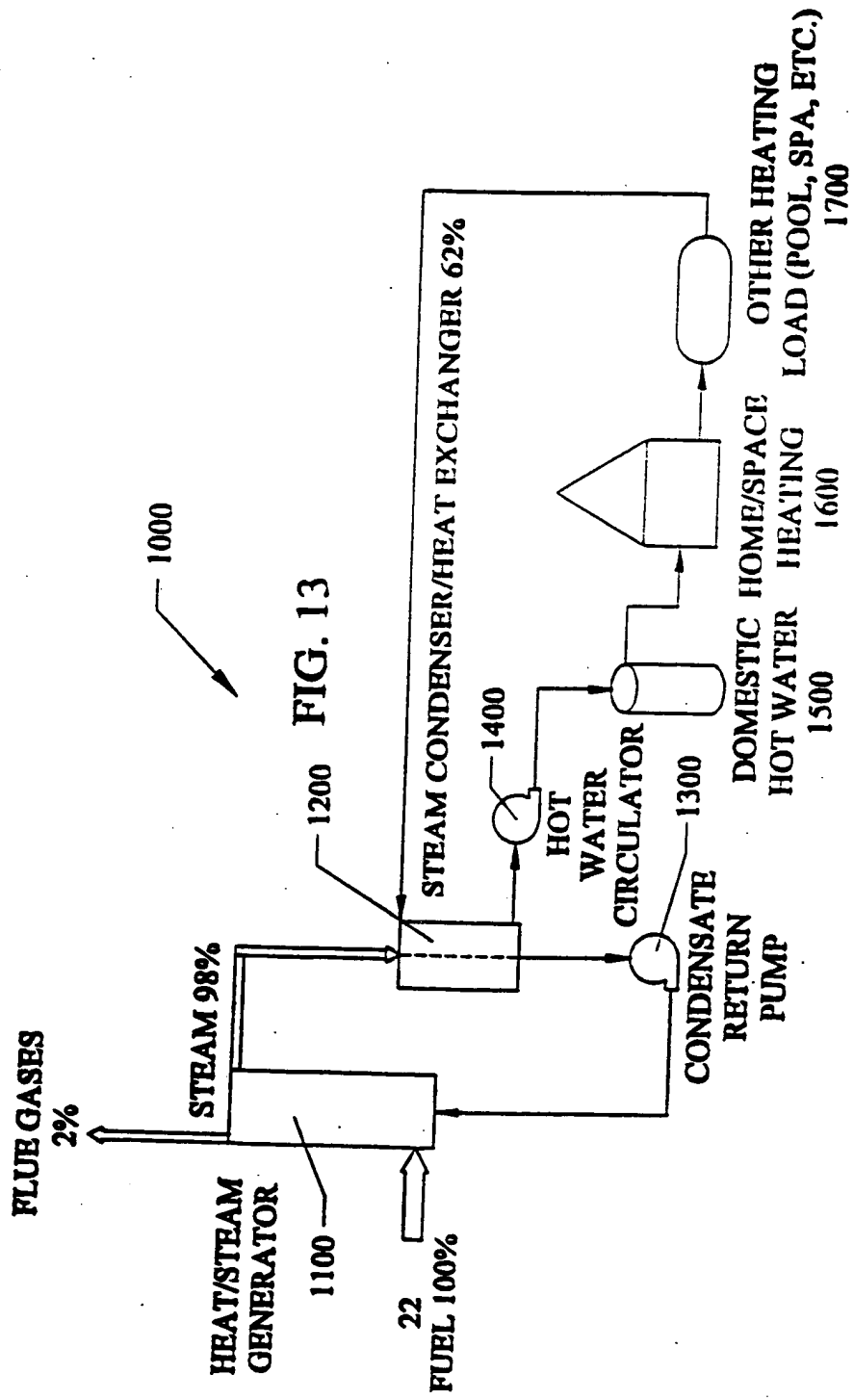


FIG. 12





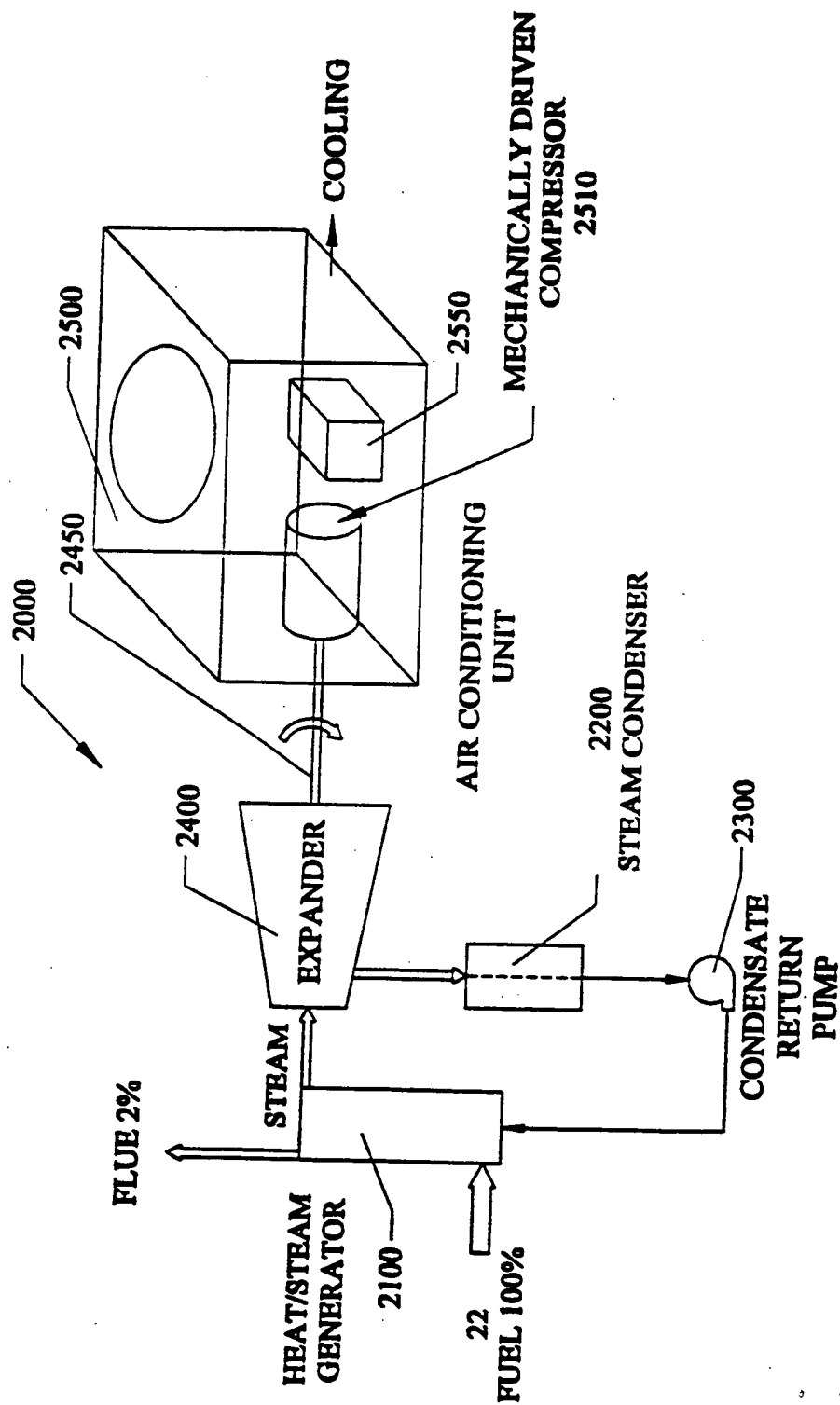


FIG. 14

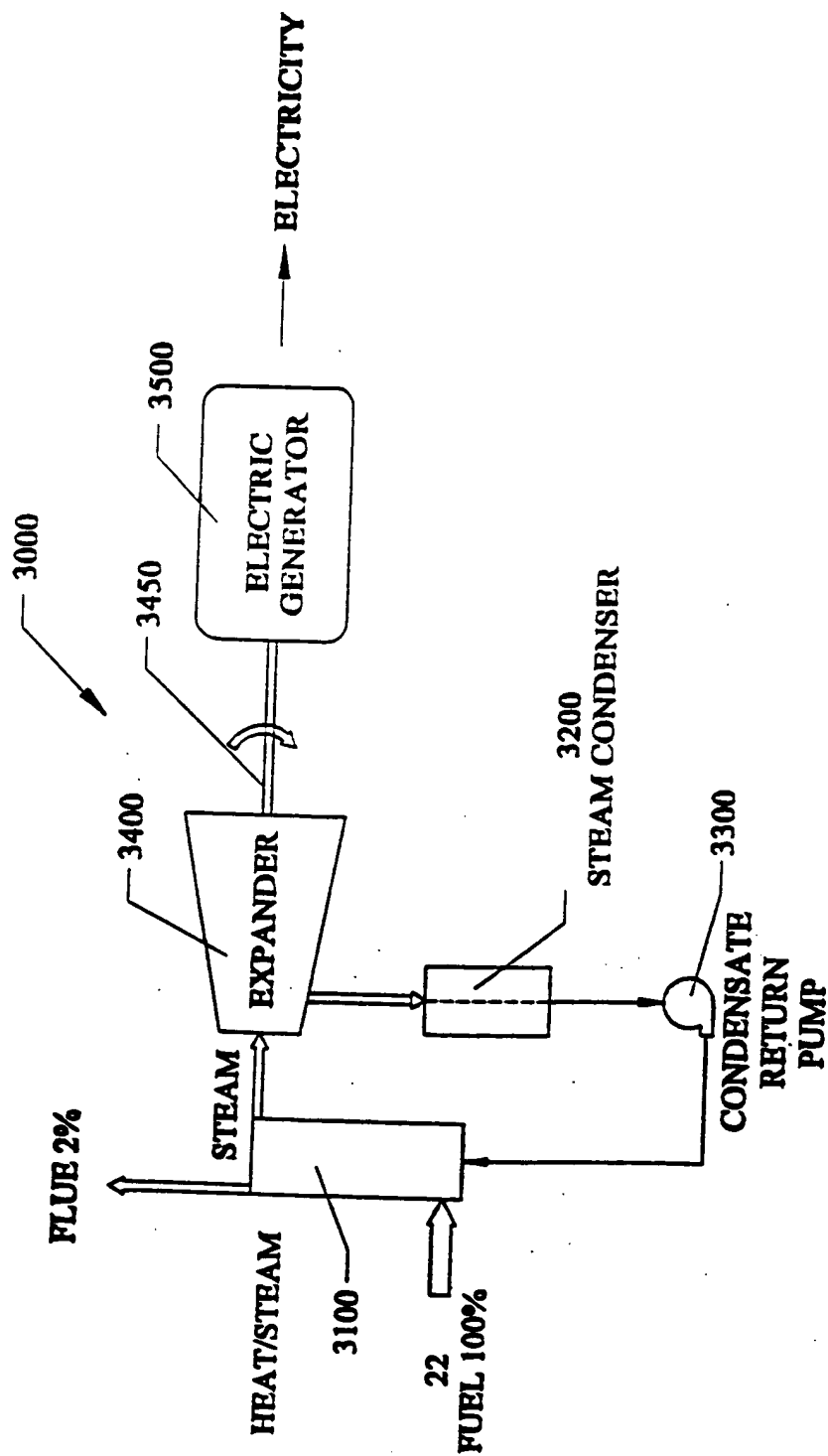
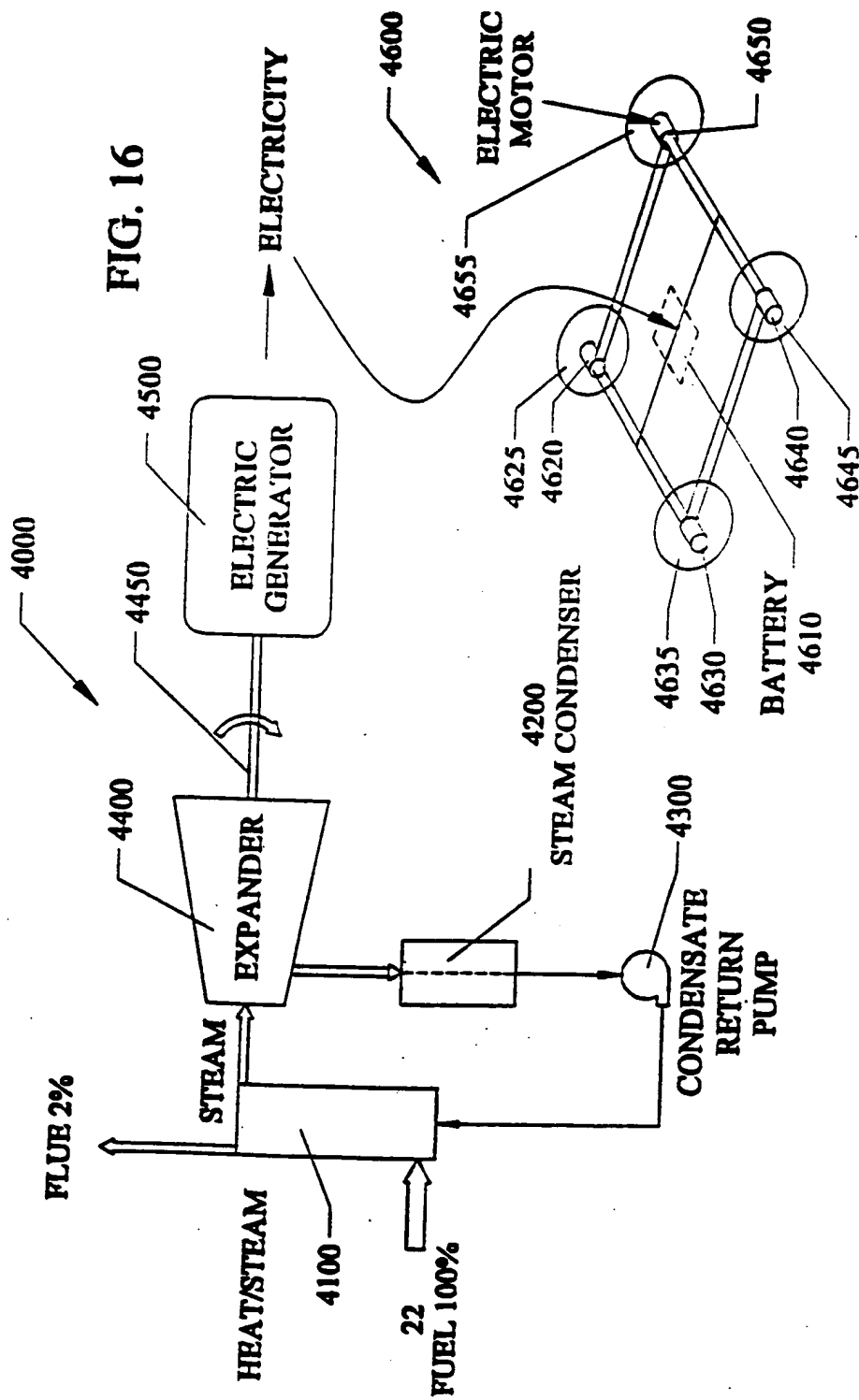


FIG. 15



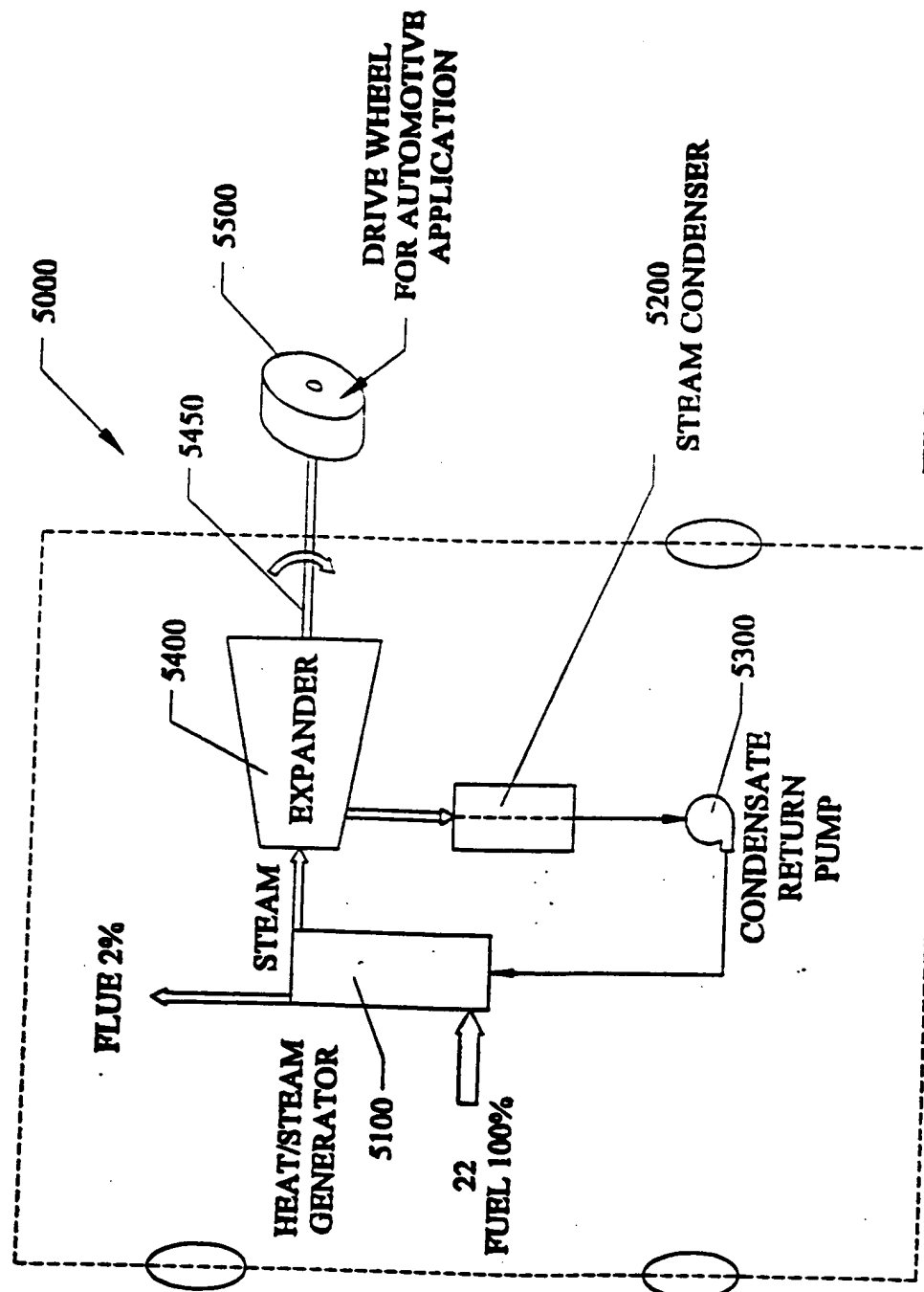
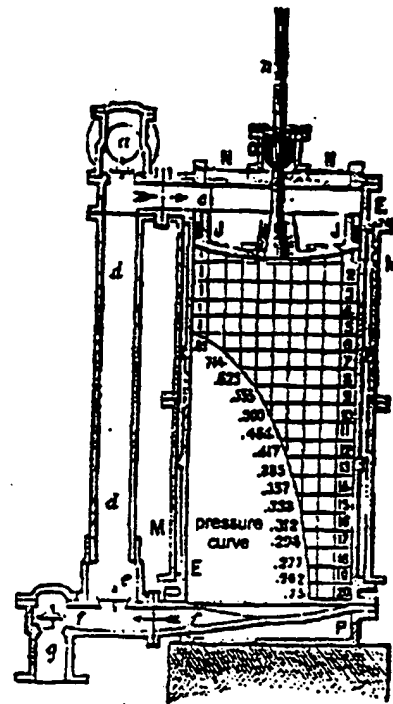
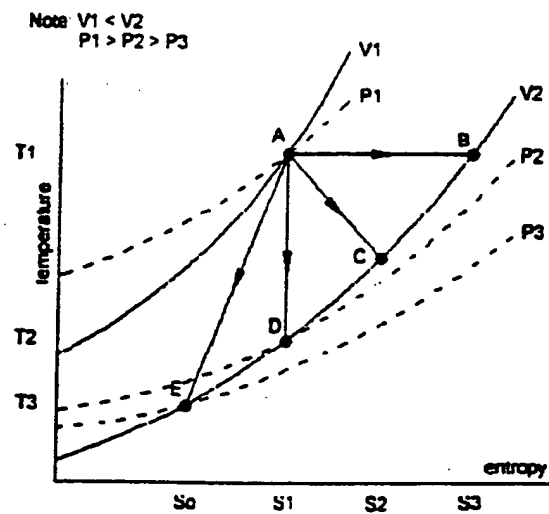


FIG. 17



**Fig. 18**

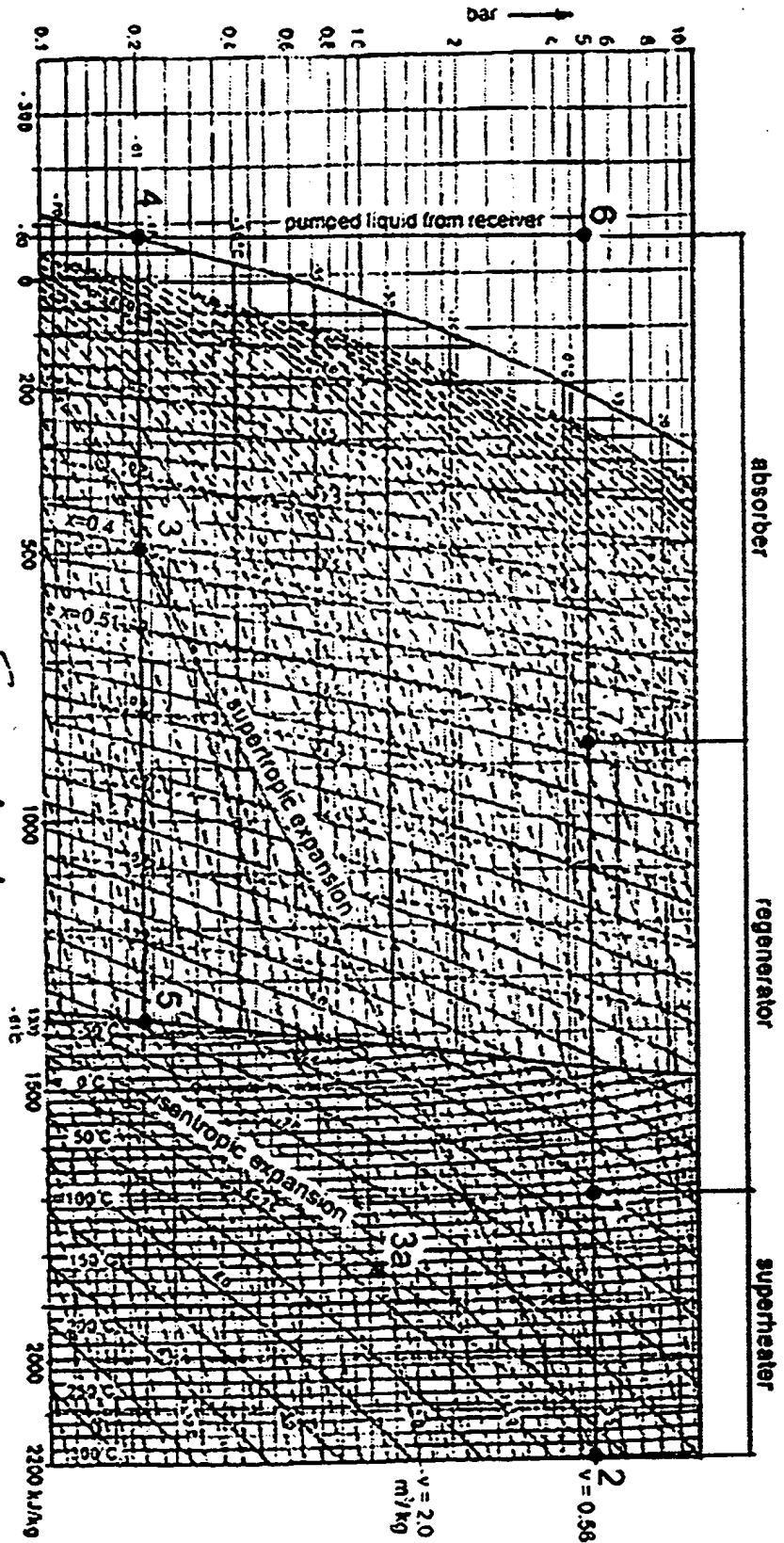
(PRIOR ART)



**Fig. 19 A**

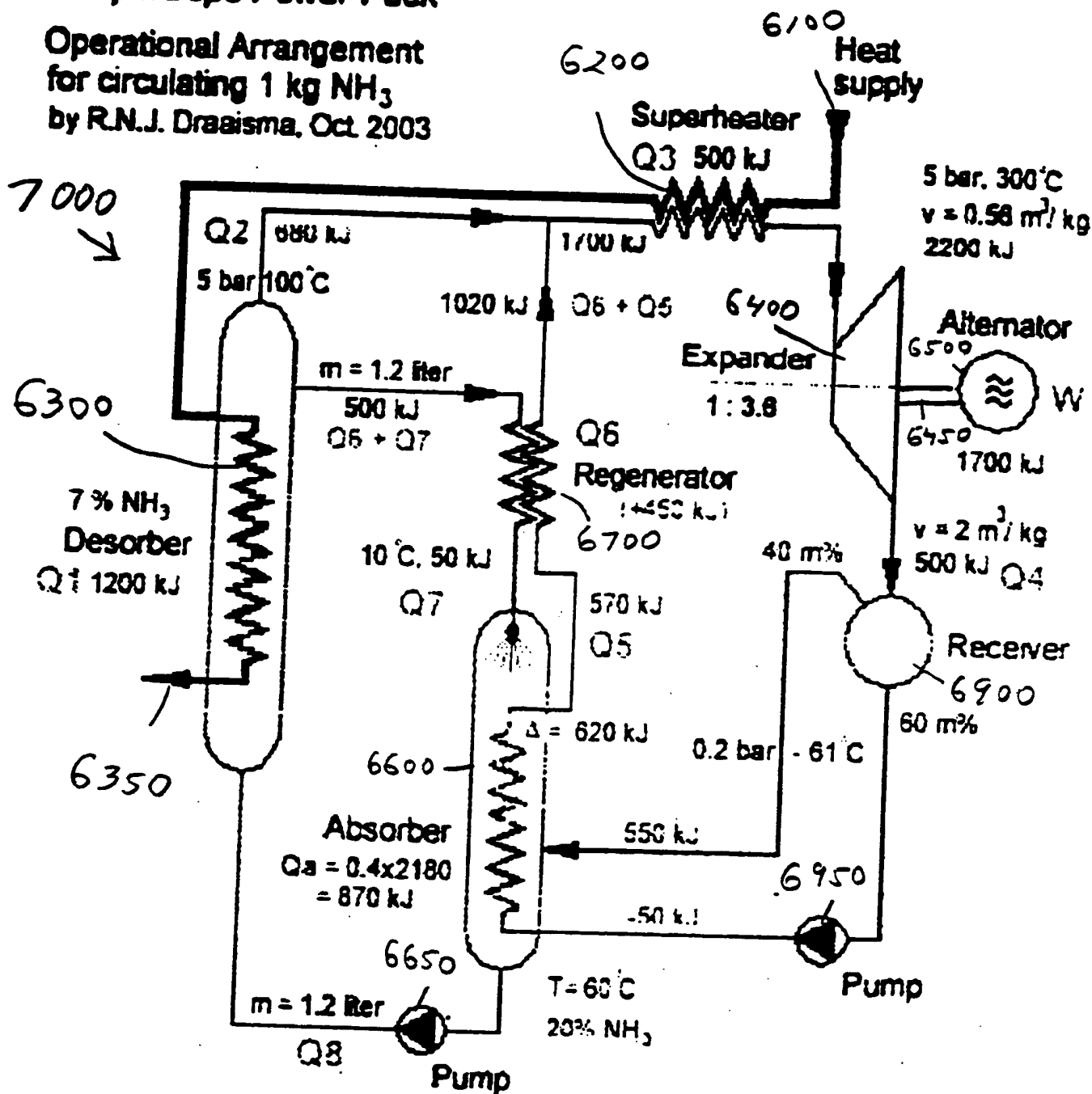
Pressure

Entropy  
Fig-19B



# Supertropic Power Pack

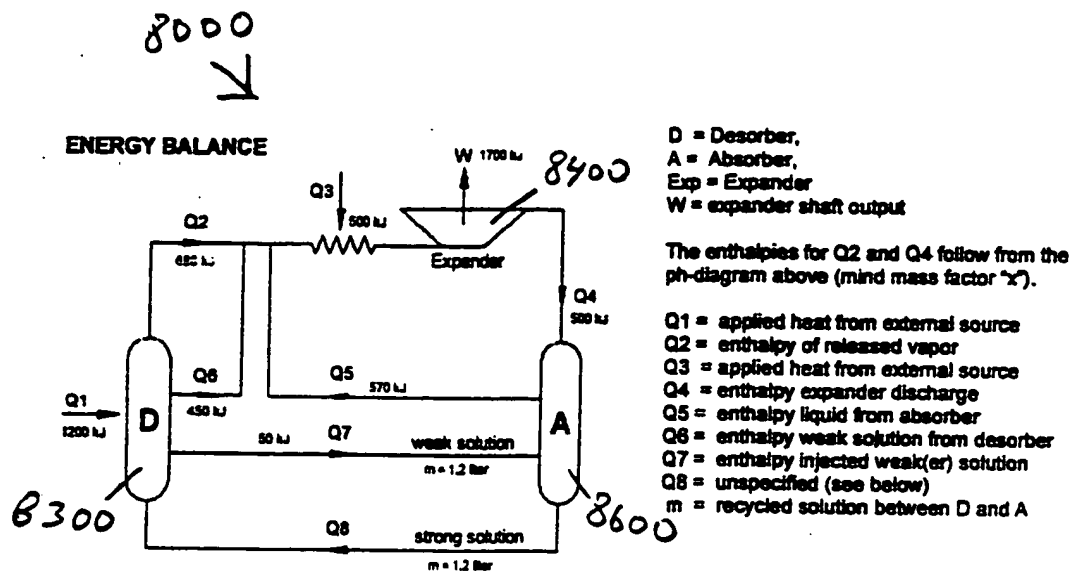
Operational Arrangement  
for circulating 1 kg  $\text{NH}_3$   
by R.N.J. Draaisma, Oct. 2003



Note. If the above is per second, the  
alternator output = 1700 kW (ideal case)

Blue figures. recirculated liquid  
Red figures. recirculated gas

Fig. 20



Balance Conditions:

$$\begin{aligned} D_{in} &= Q1 + Q8 & D_{out} &= Q2 + Q6 + Q7 & EXP_{in} &= Q2 + Q6 + Q5 + Q3 \\ A_{in} &= Q4 + Q7 & A_{out} &= Q5 + Q8 & EXP_{out} &= Q4 \end{aligned}$$

$$W = Q1 + Q3 \quad (1)$$

$$EXP_{in} - EXP_{out} = Q2 + Q6 + Q5 + Q3 - Q4 = W = Q1 + Q3 \quad (2)$$

$$Q1 = Q2 + Q6 + Q5 - Q4 \quad (3)$$

$$D_{in} - D_{out} = Q1 + Q8 - Q2 - Q6 - Q7 \quad (4)$$

$$(3 \text{ \& } 4 \text{ combined, eliminating } Q1) \rightarrow D_{in} - D_{out} = Q5 - Q4 + Q8 - Q7 \quad (5)$$

$$-(A_{in} - A_{out}) = Q5 - Q4 + Q8 - Q7 \quad (6)$$

**Fig. 28**





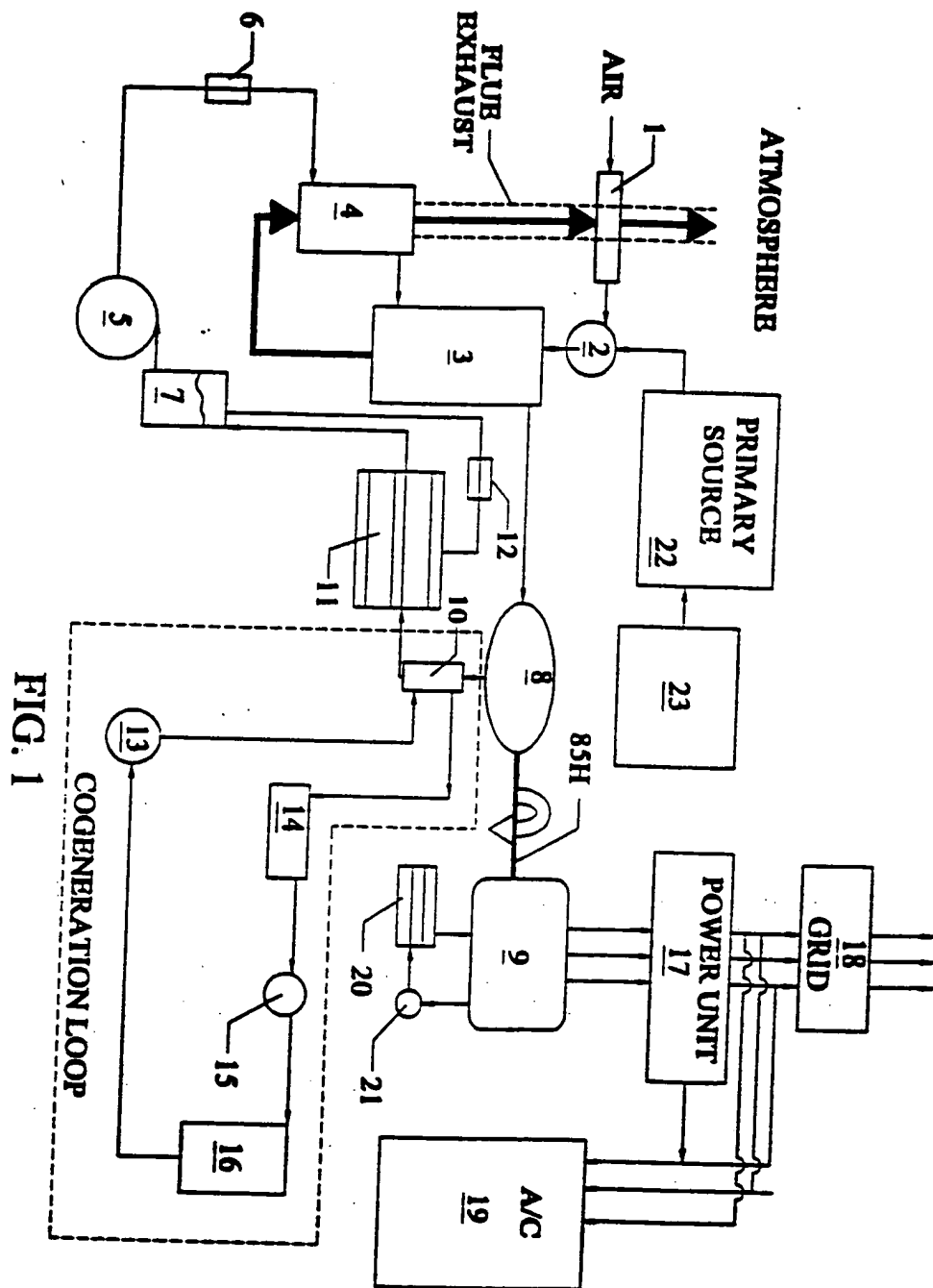


FIG. 1

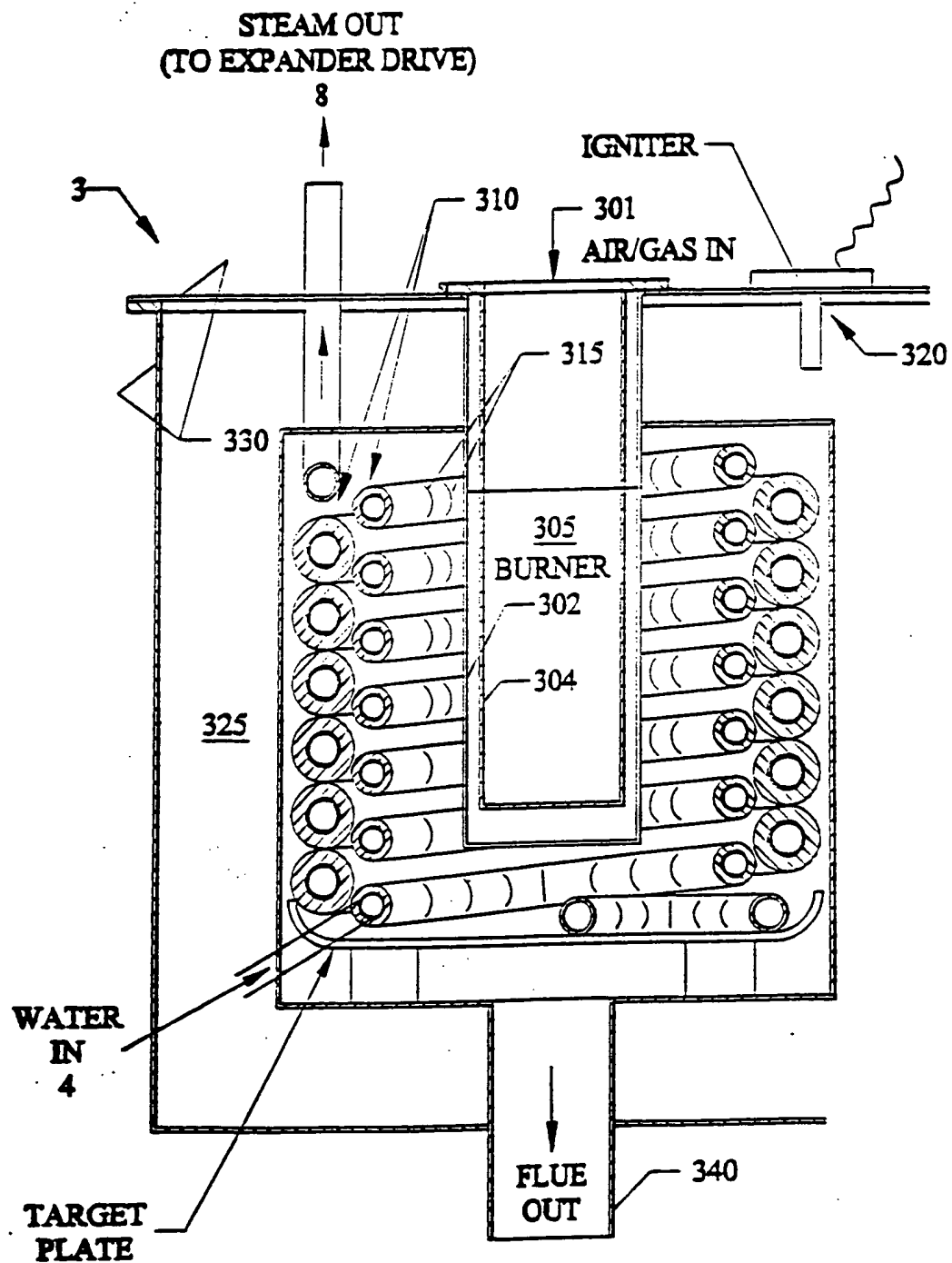


FIG. 2A

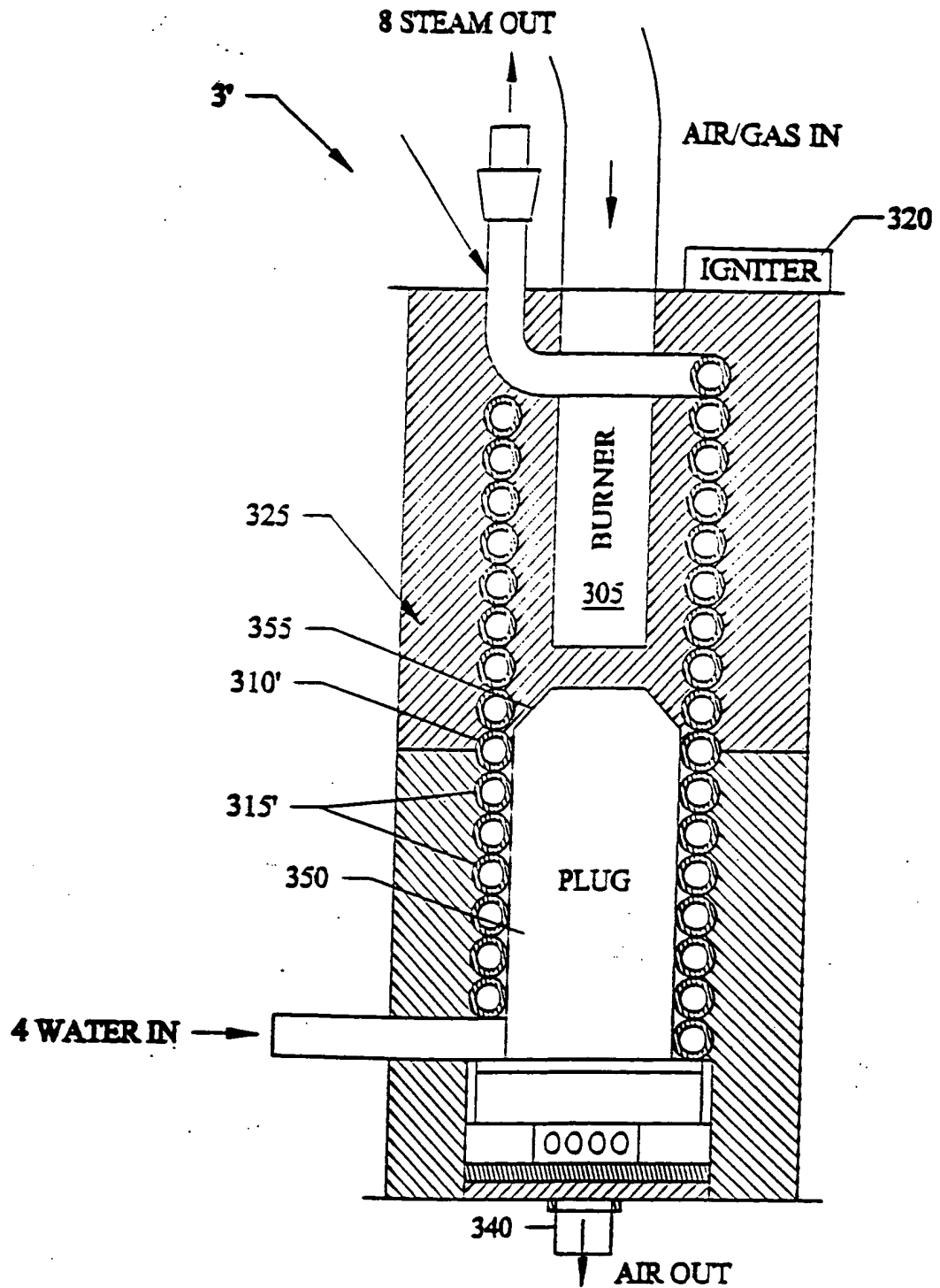


FIG. 2B

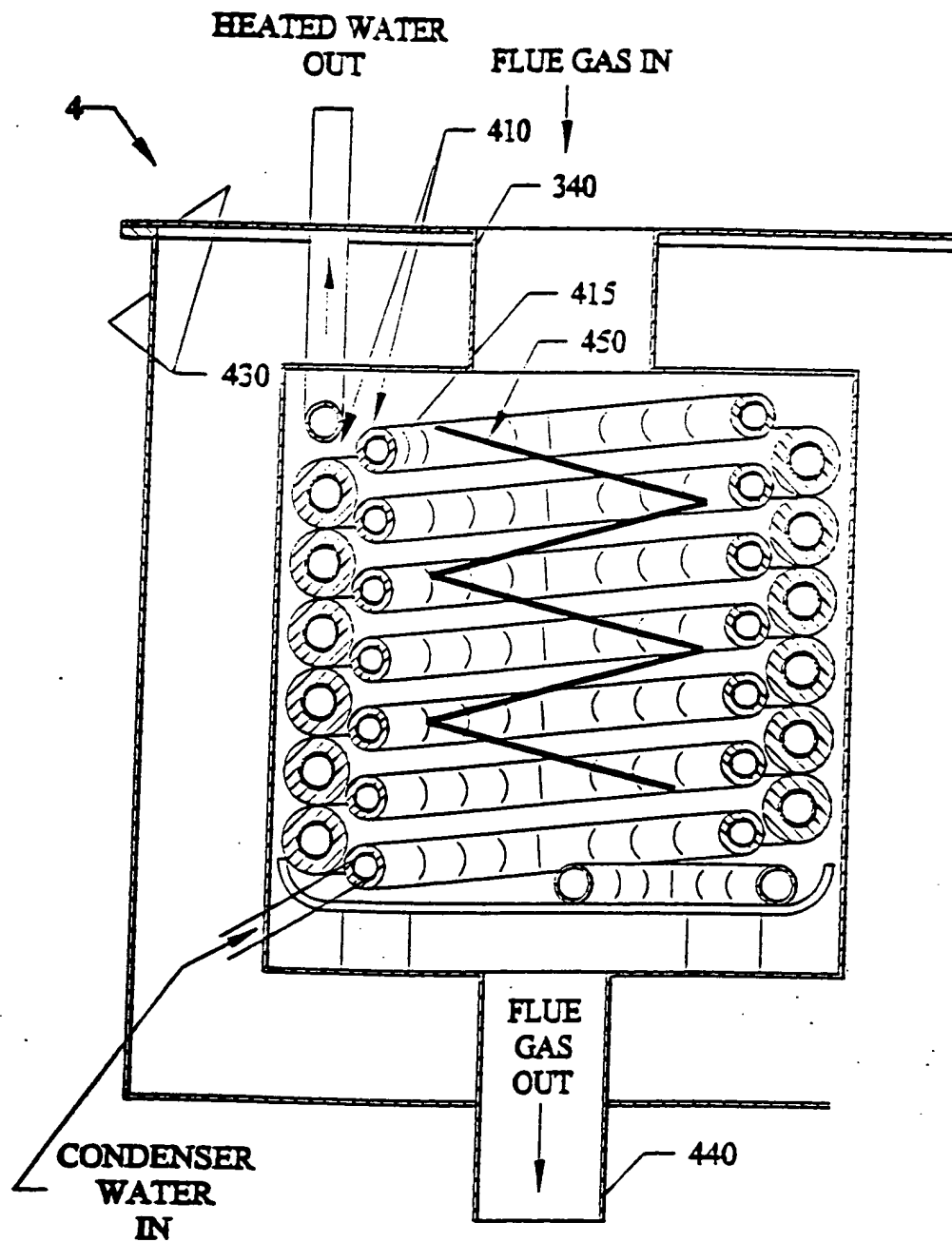


FIG. 3

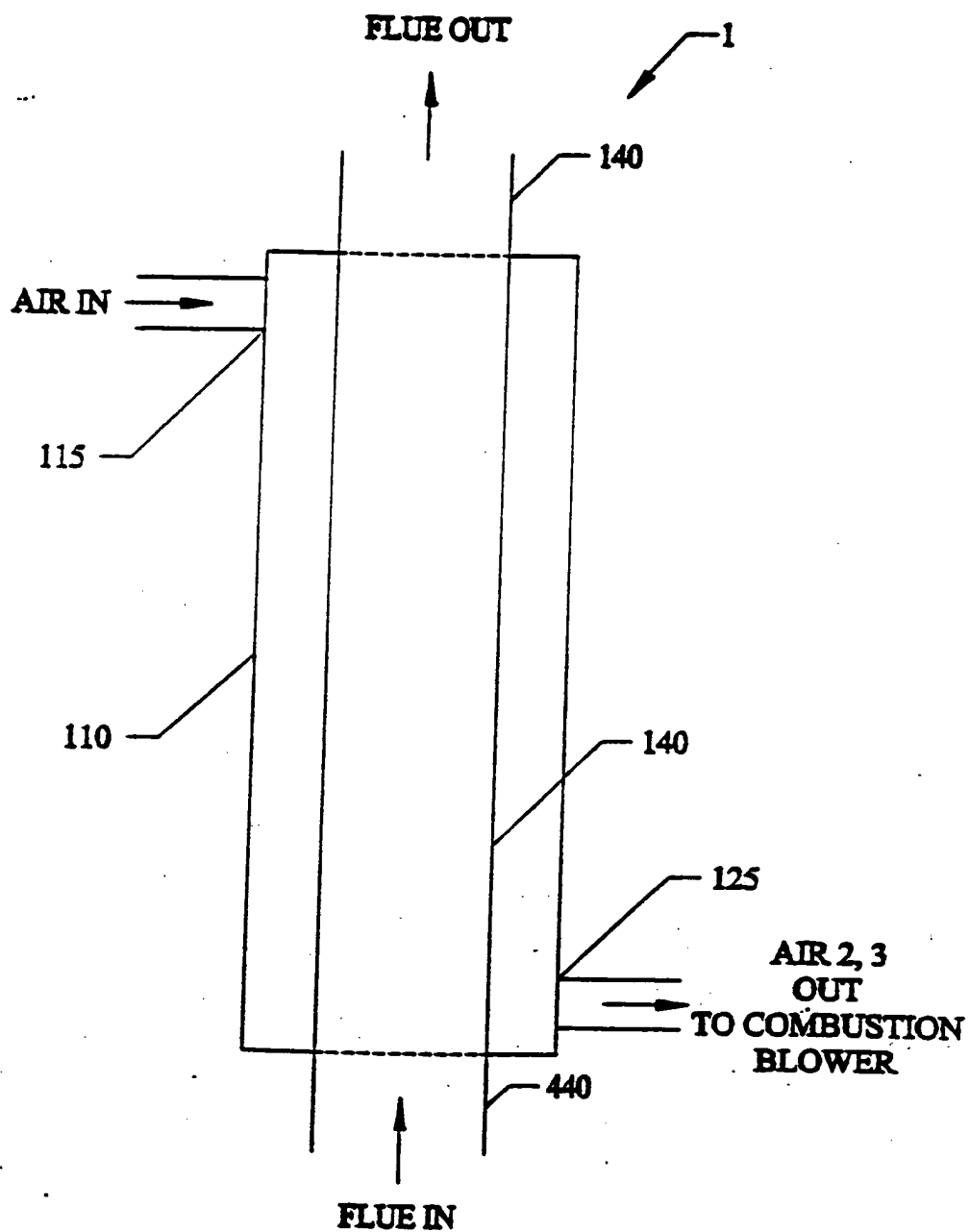


FIG. 4

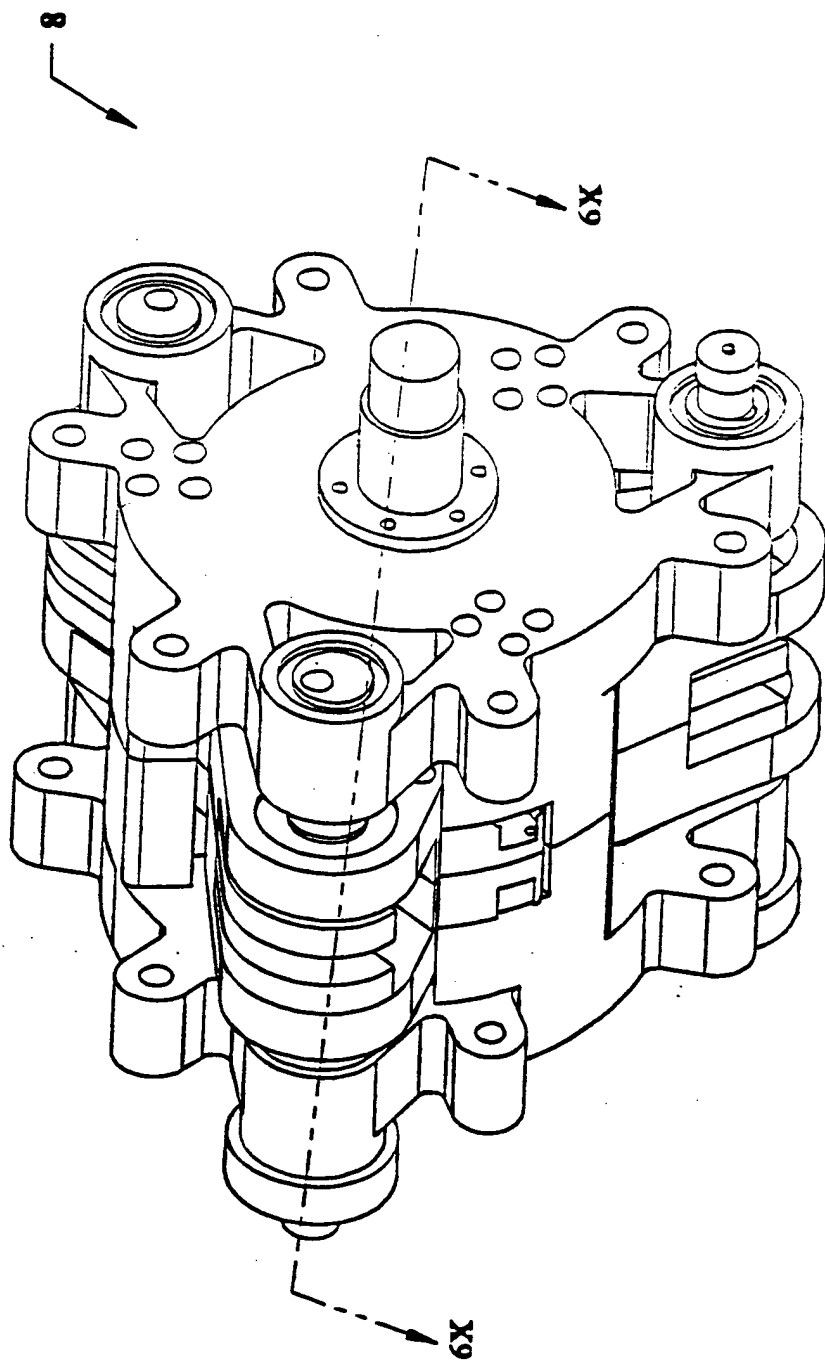


FIG. 5A

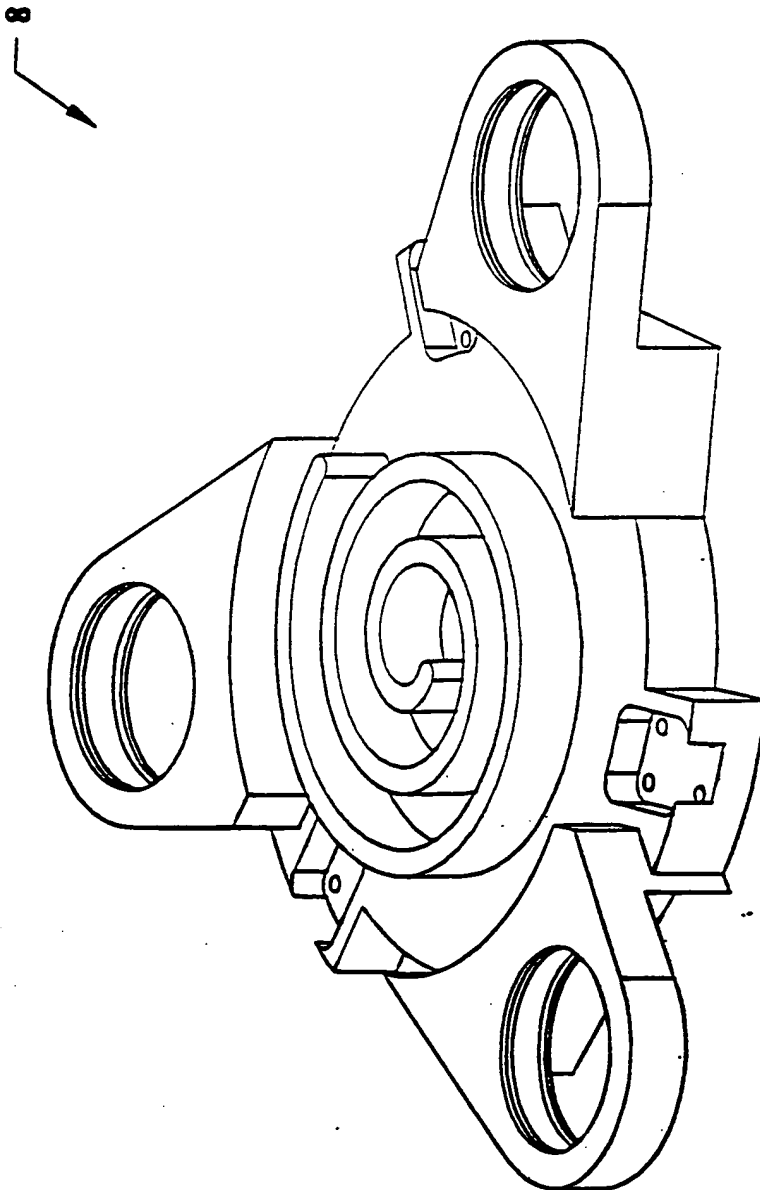
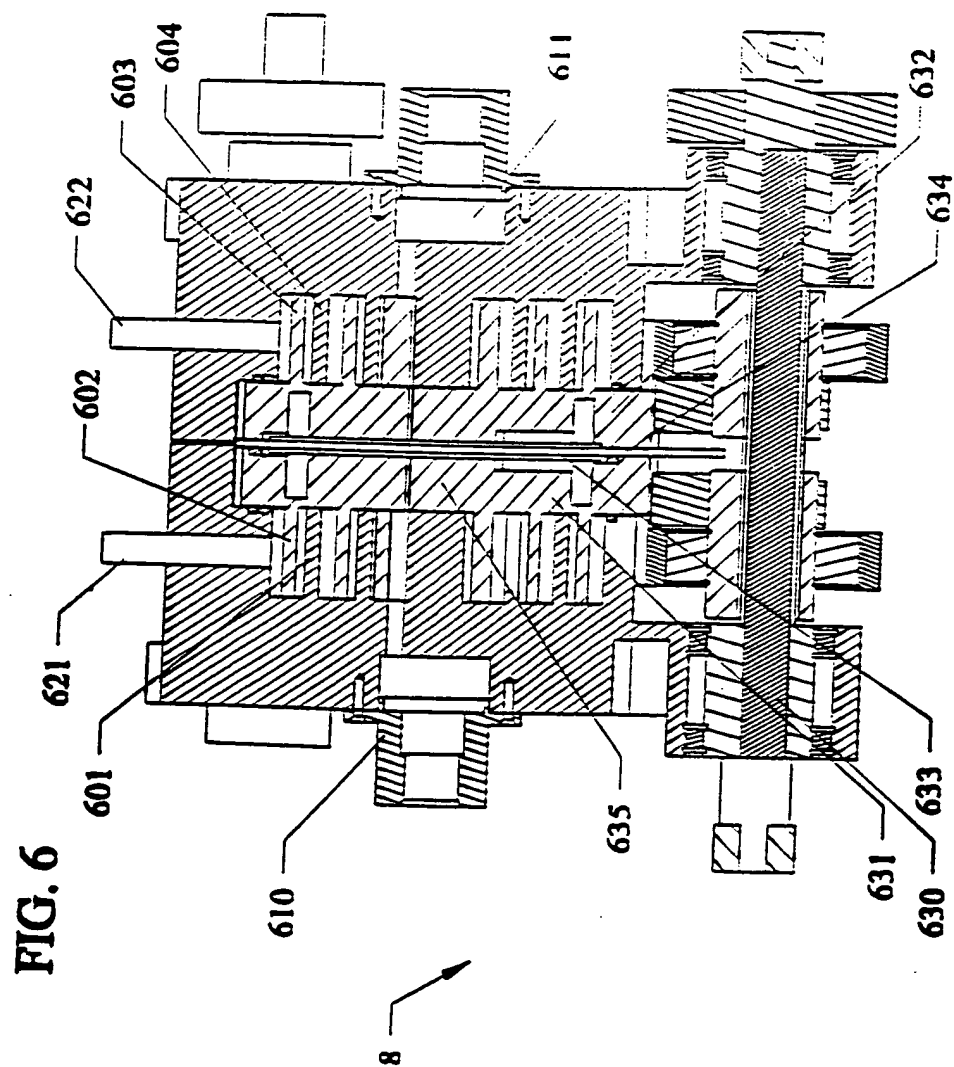


FIG. 5B





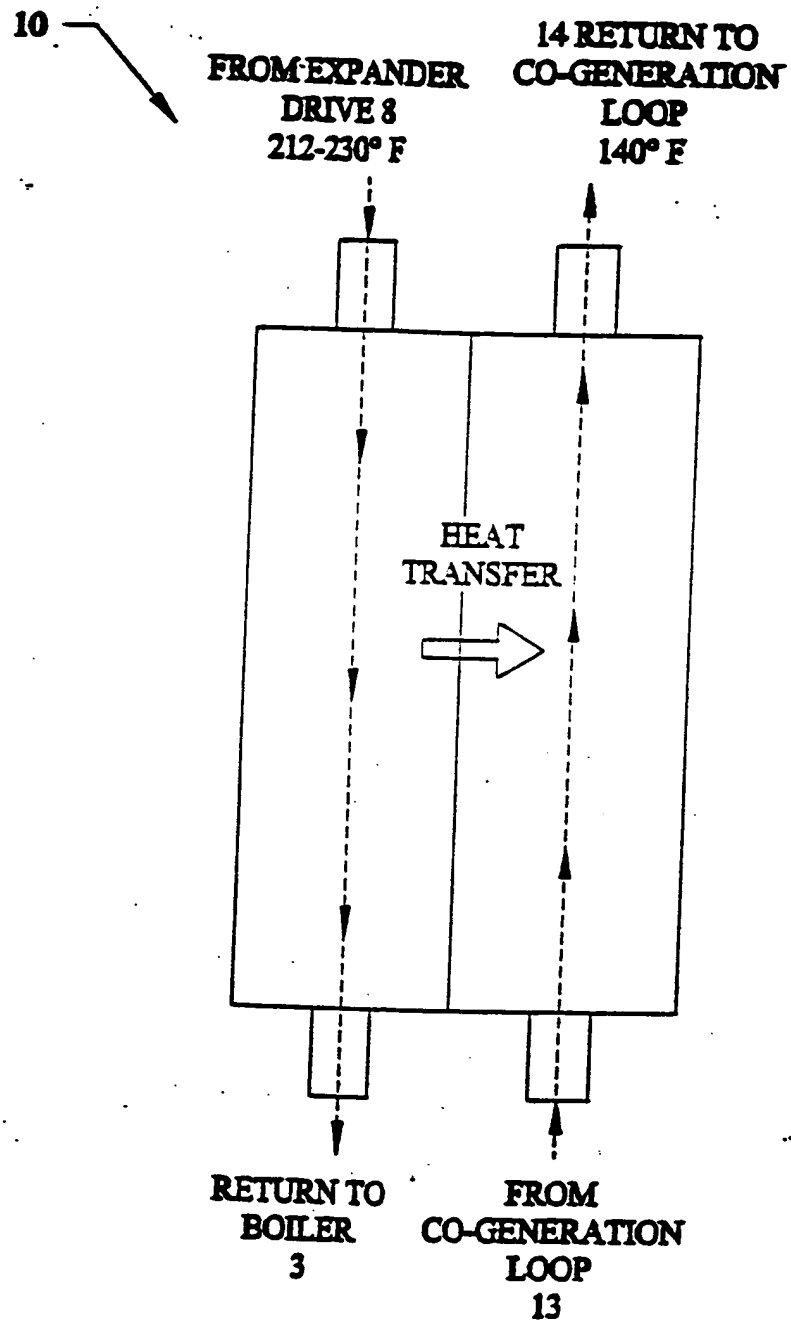
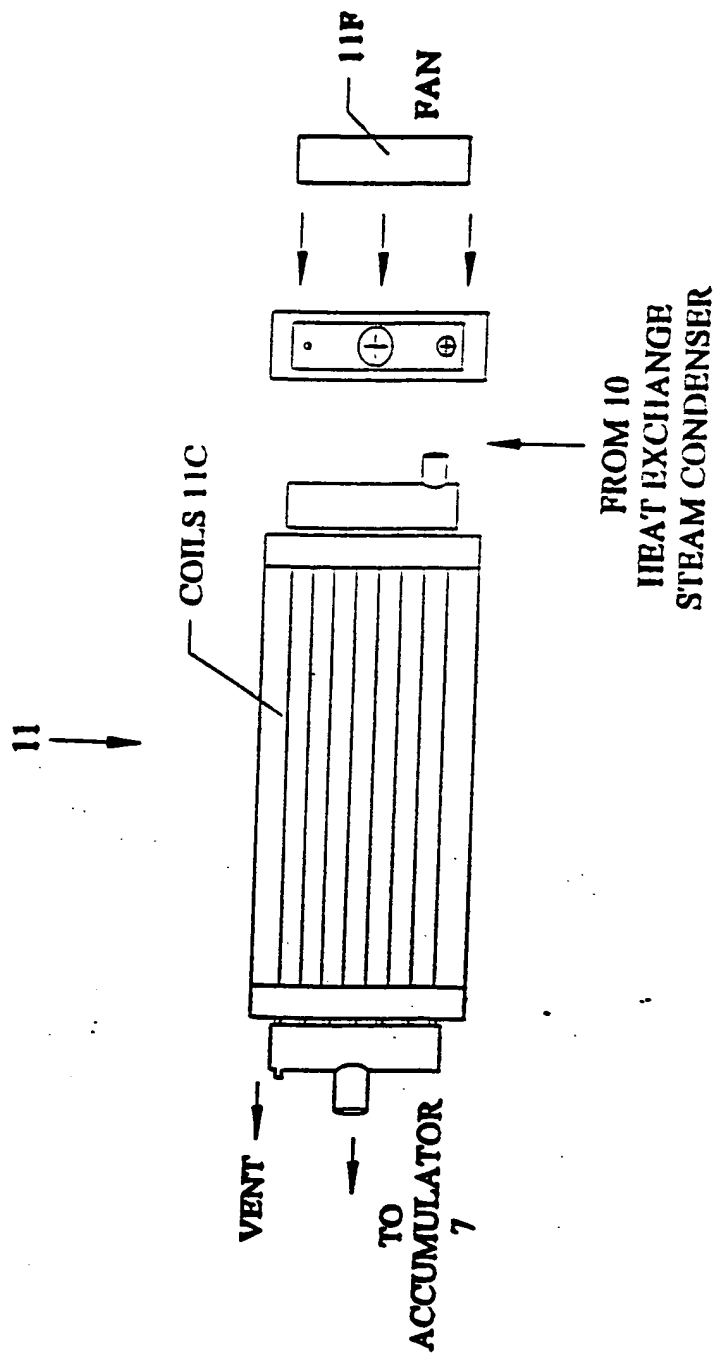


FIG. 7

FIG. 8A

FIG. 8B



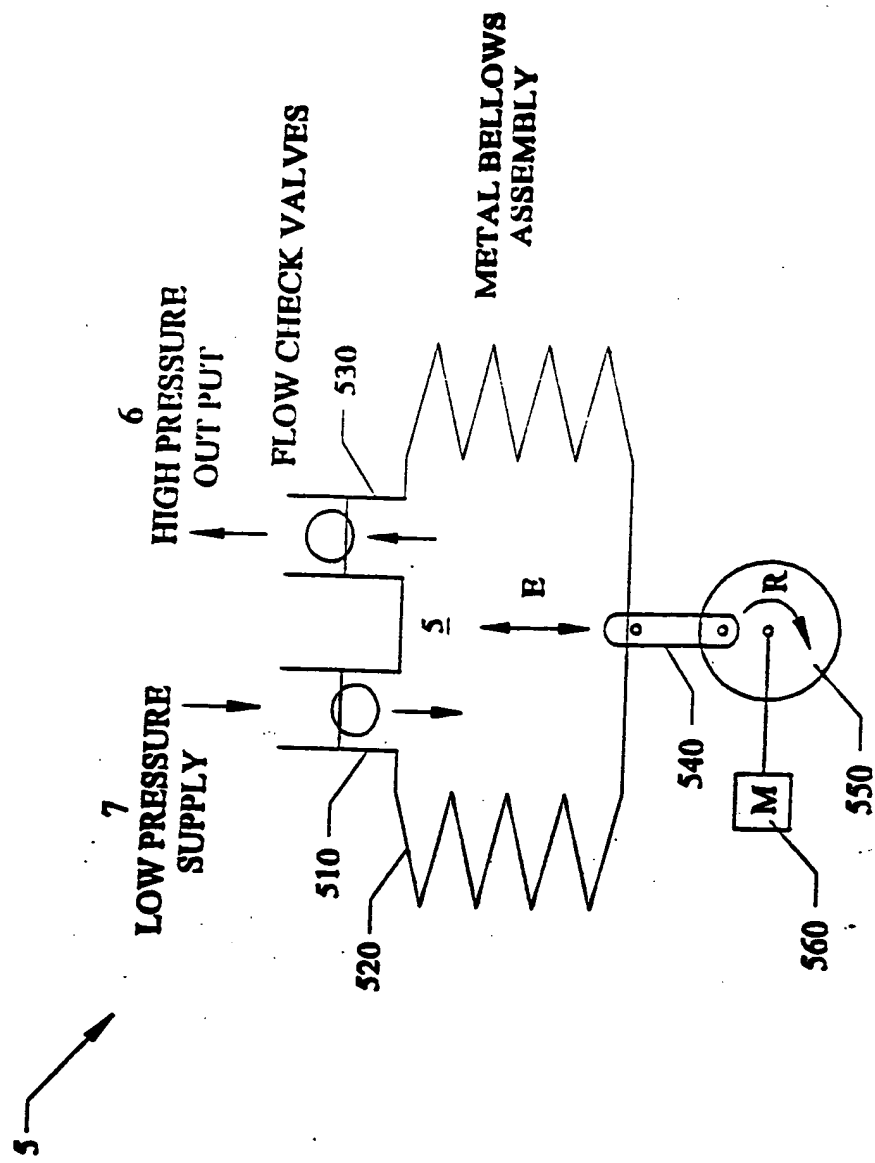


FIG. 9

FIG. 10A

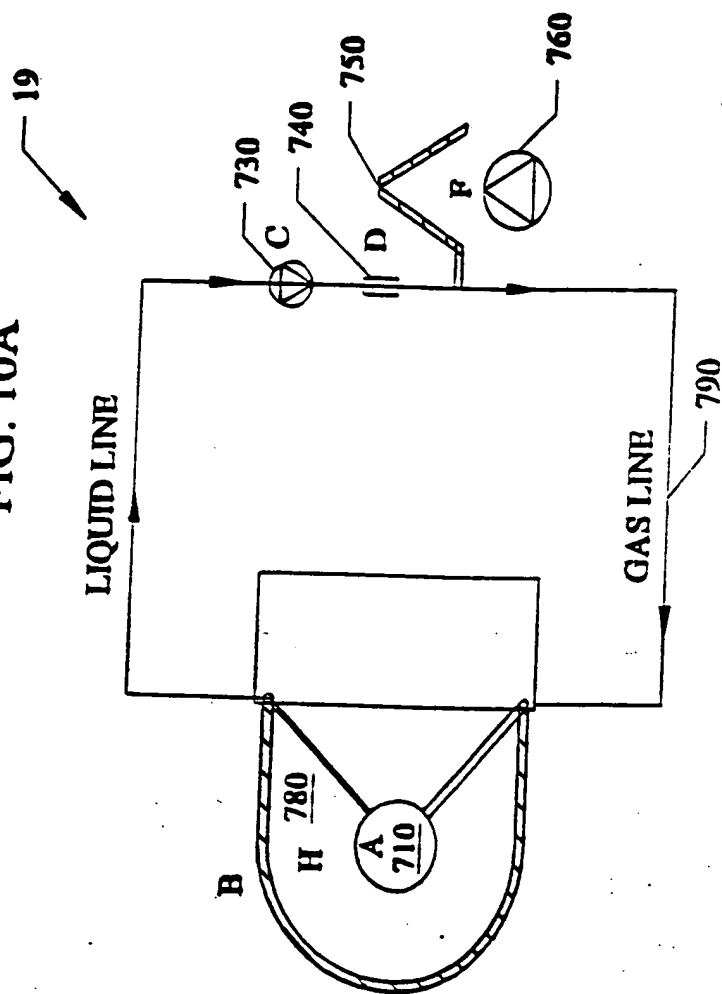
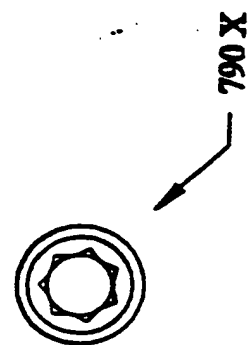
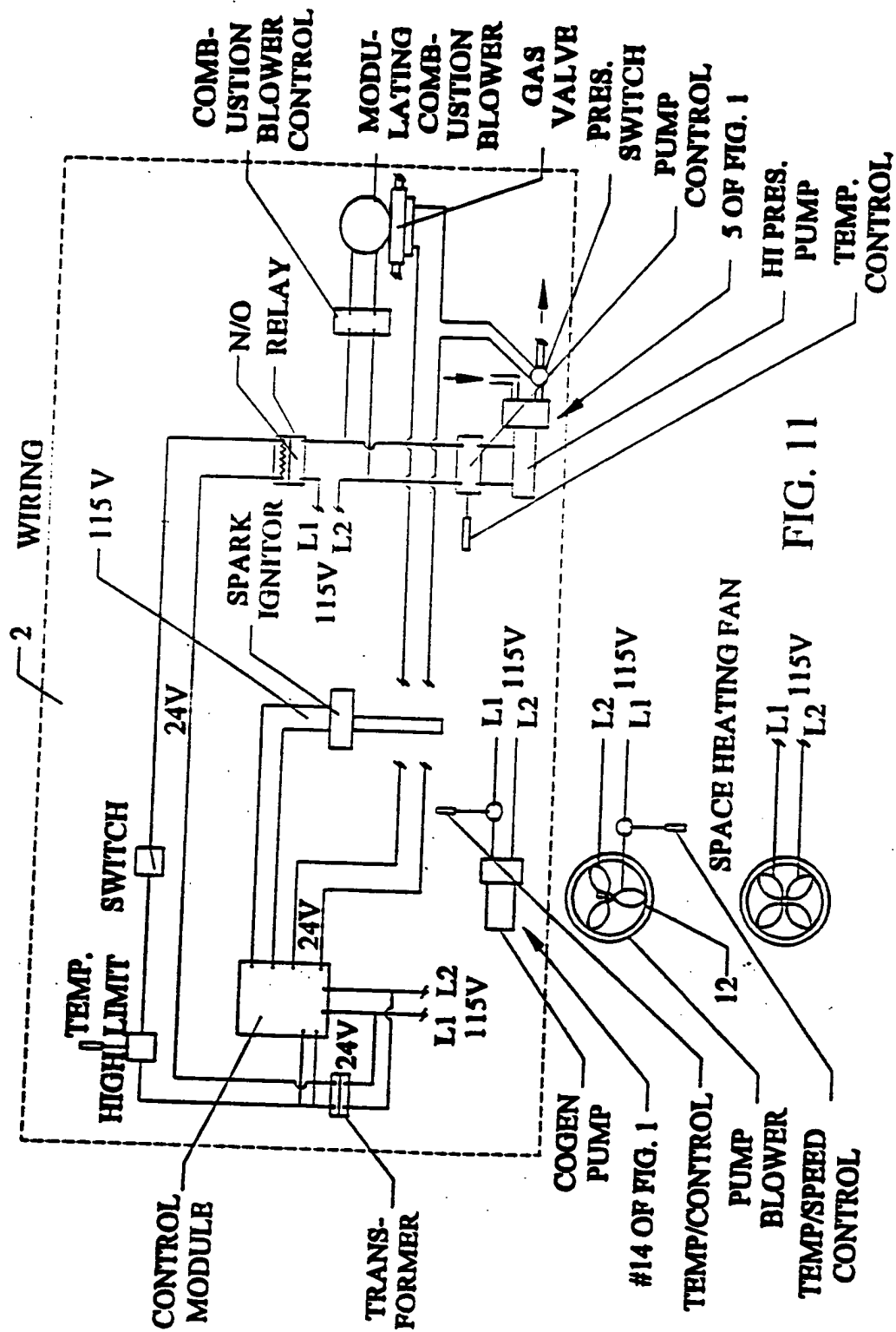


FIG. 10B





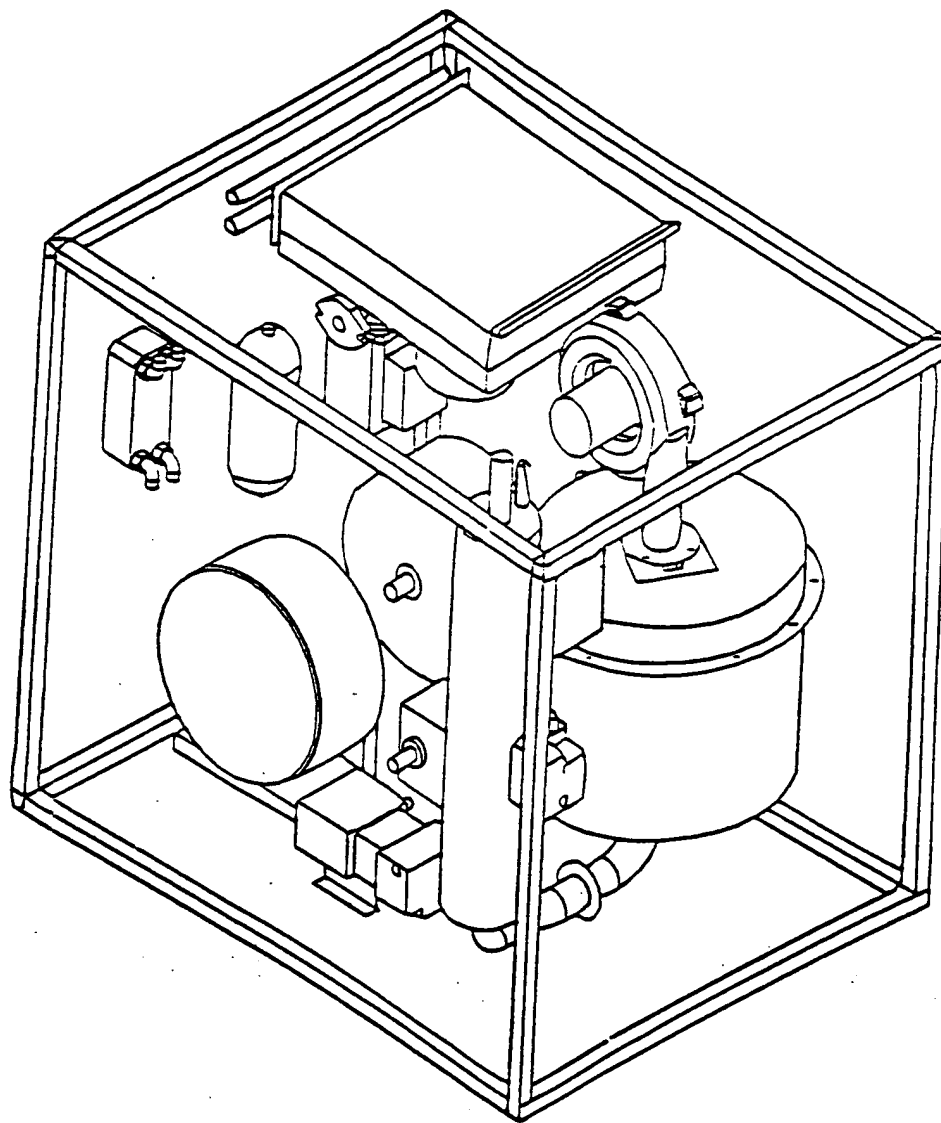
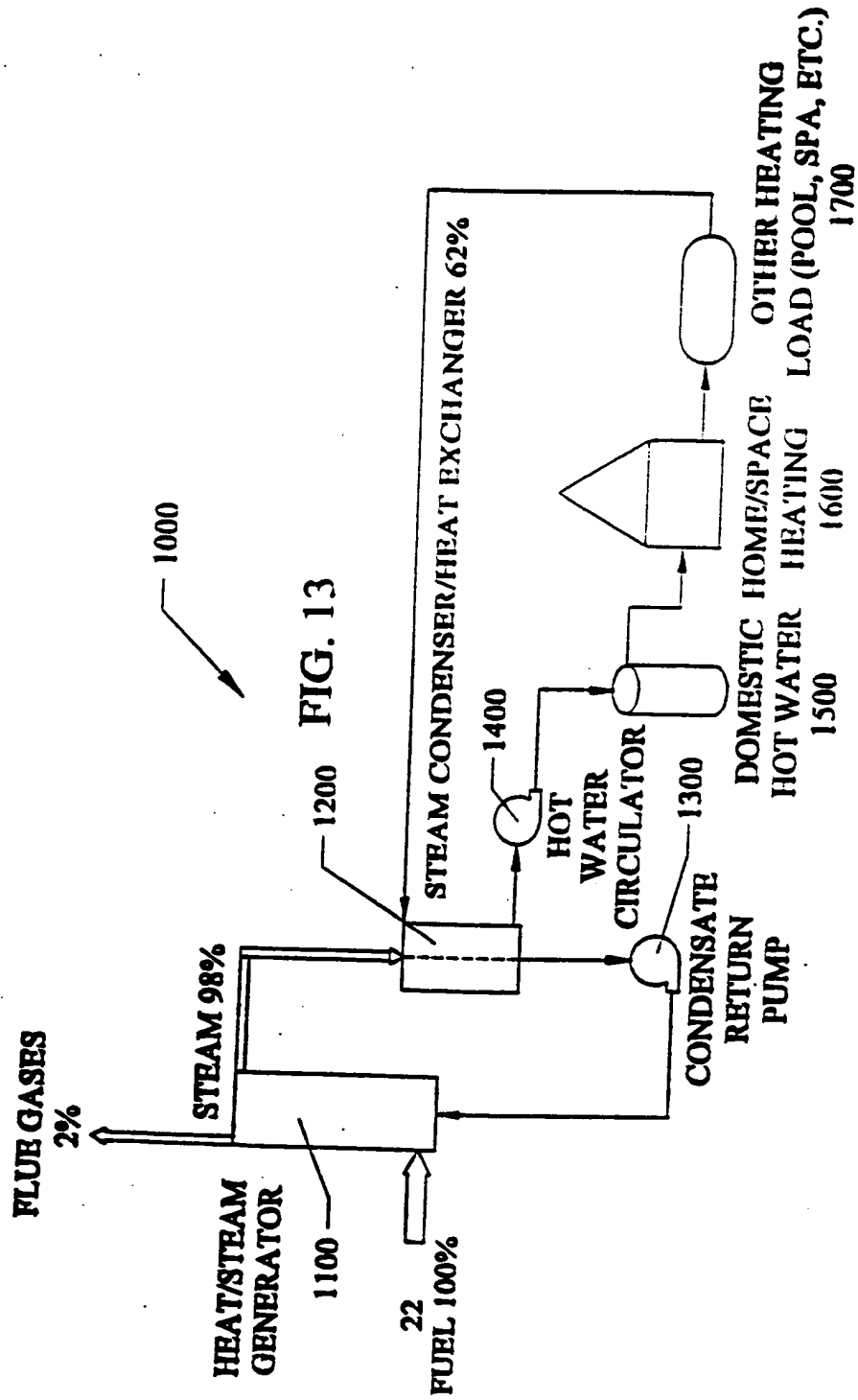


FIG. 12





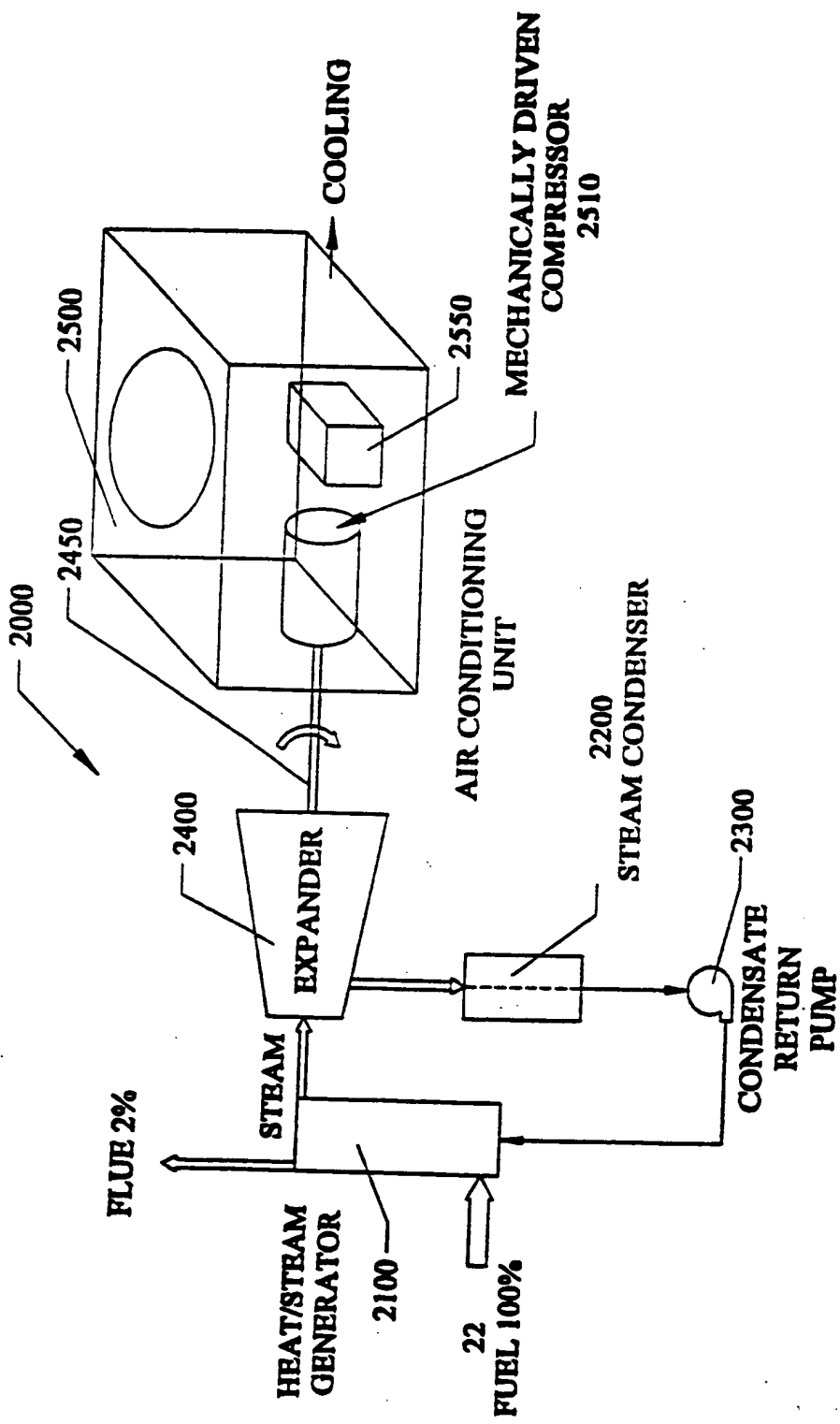


FIG. 14

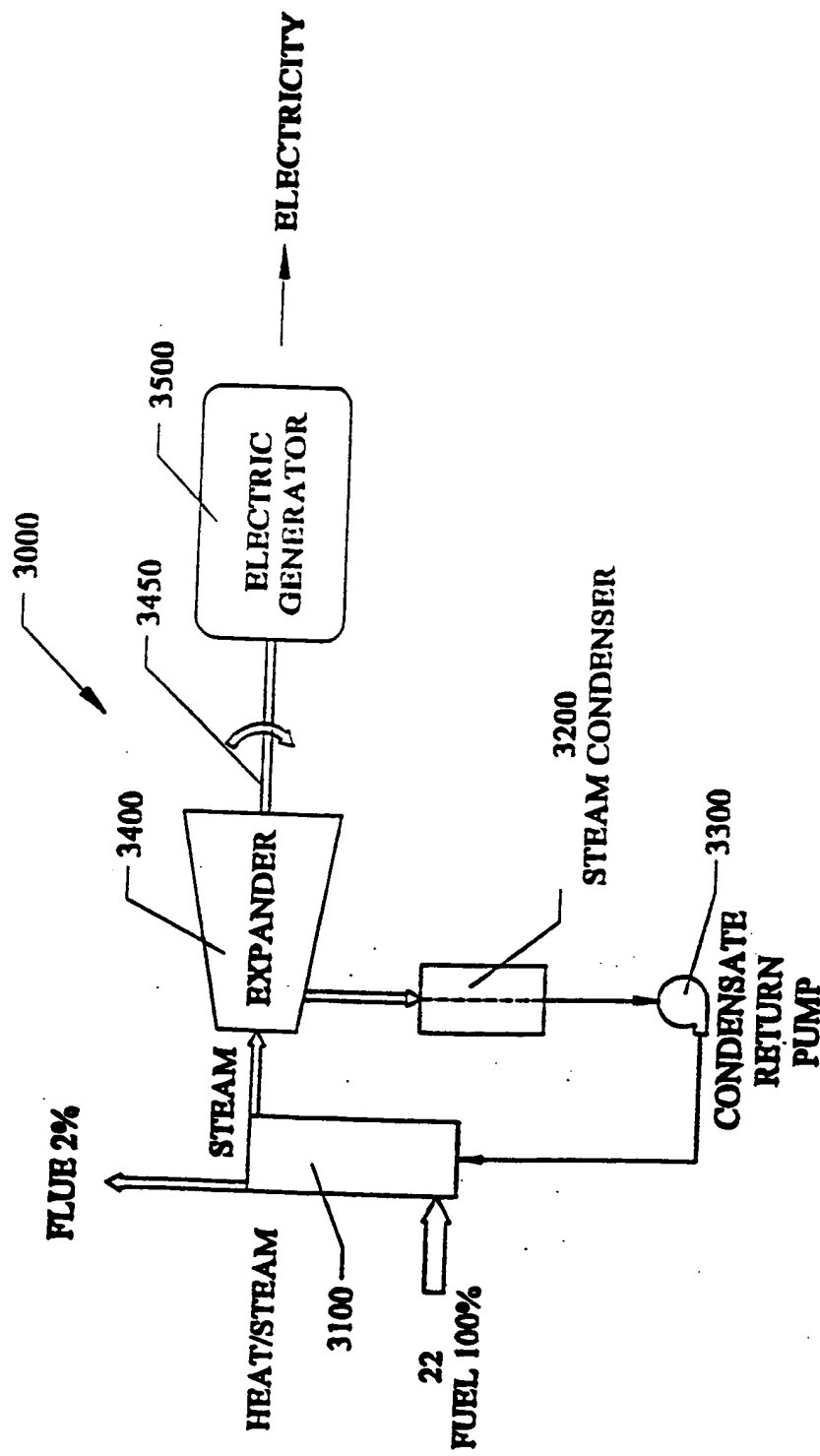
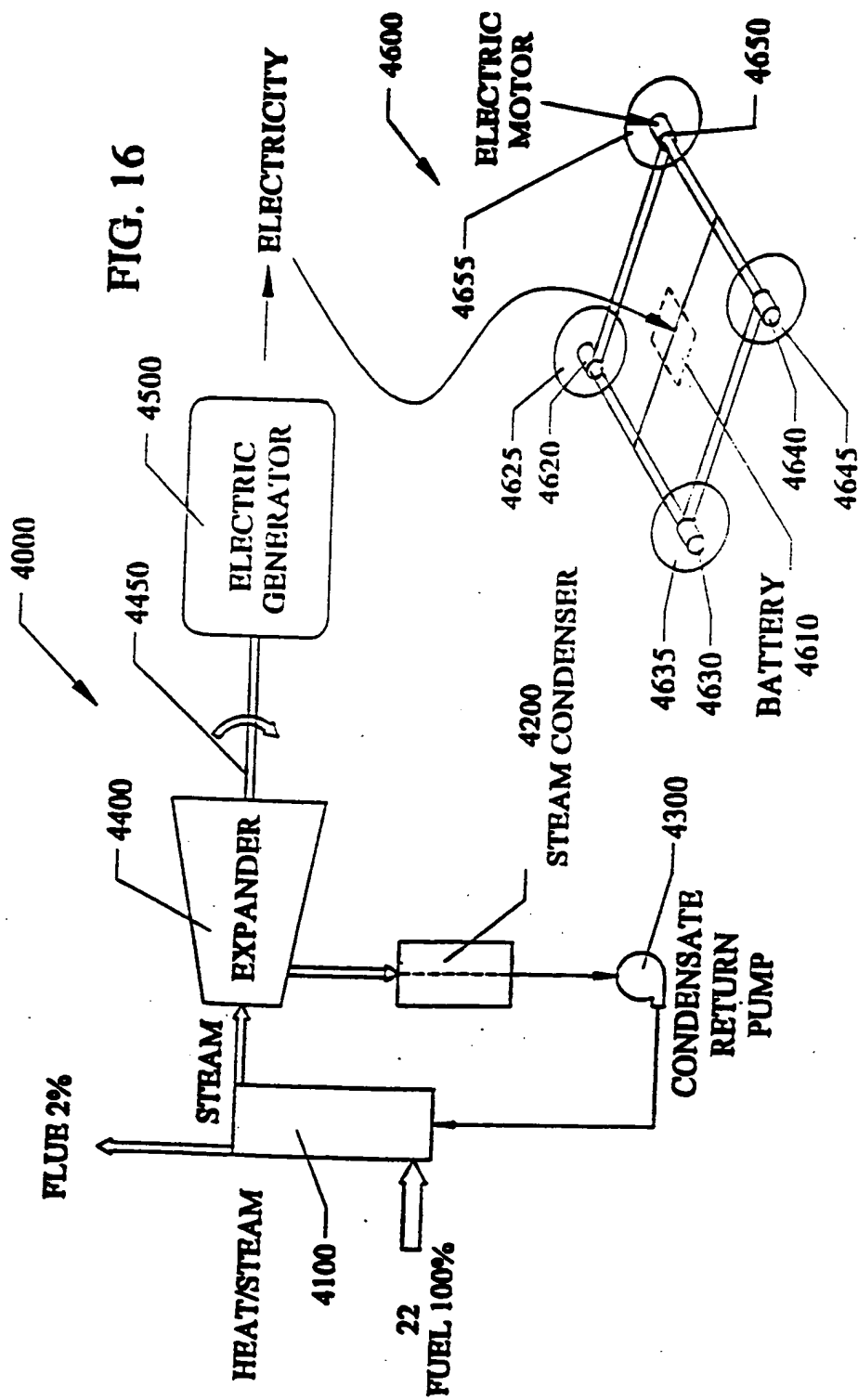


FIG. 15



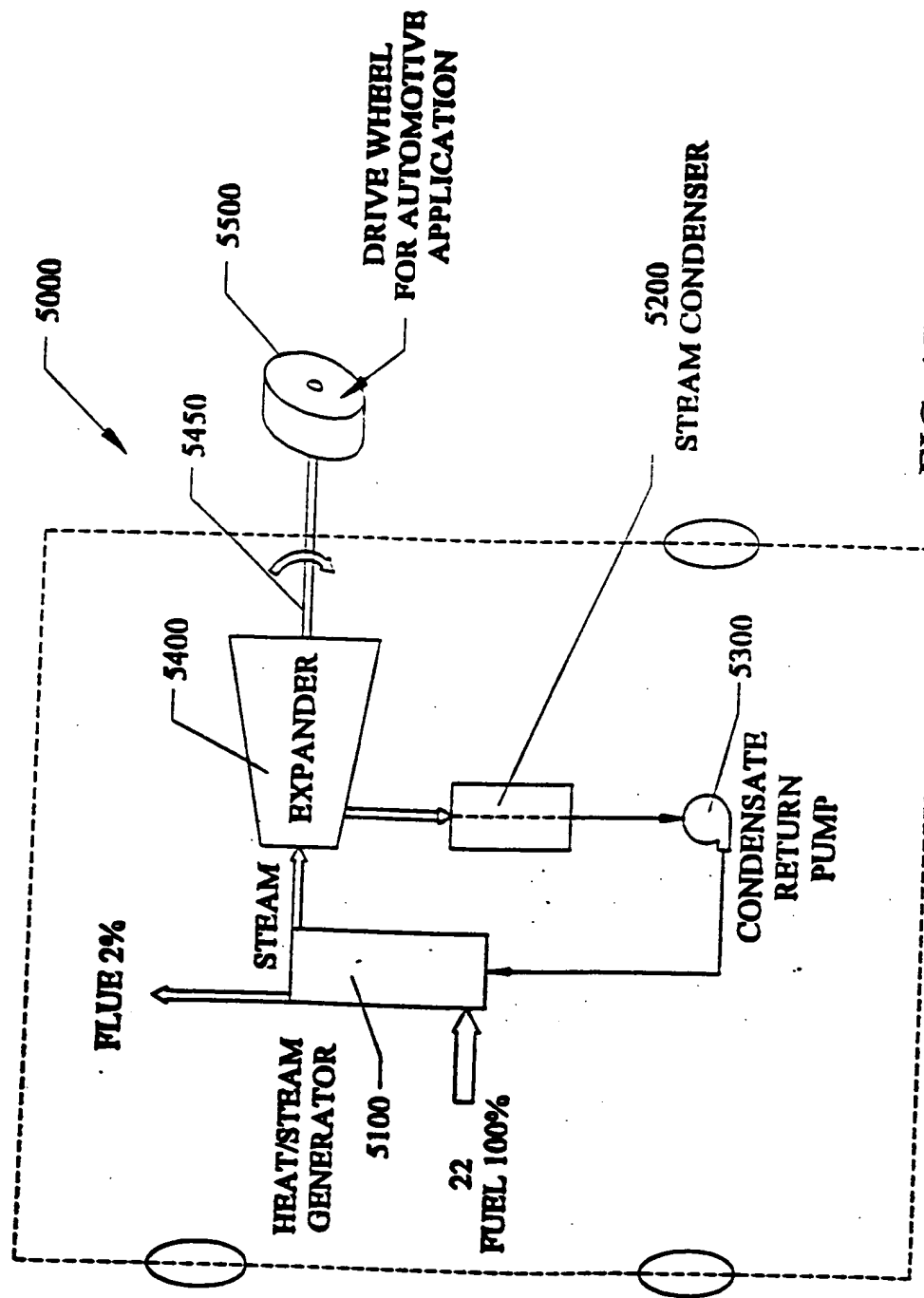
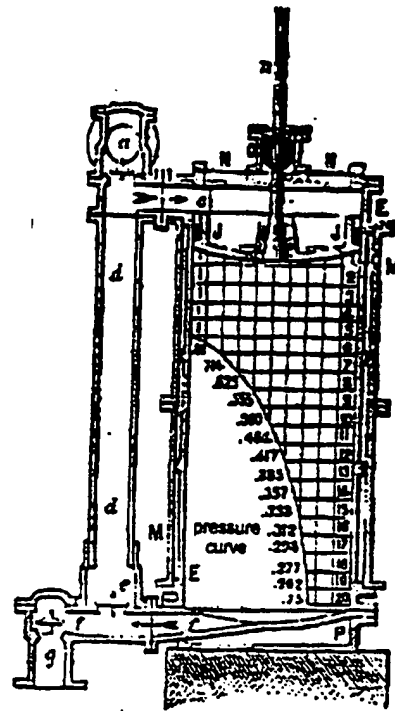


FIG. 17



Watt's data on the Expansion of Steam

Fig. 18

(PRIOR ART)

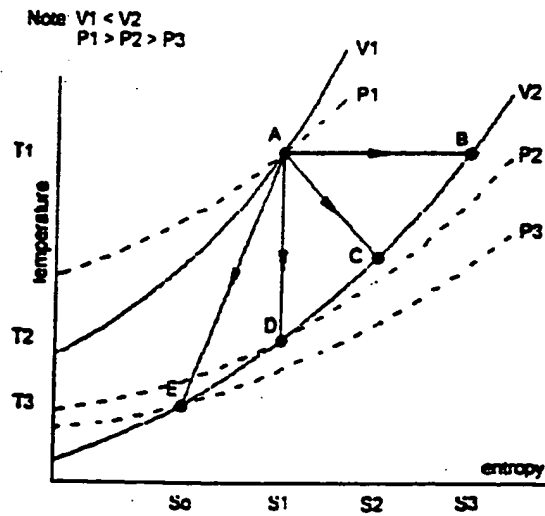
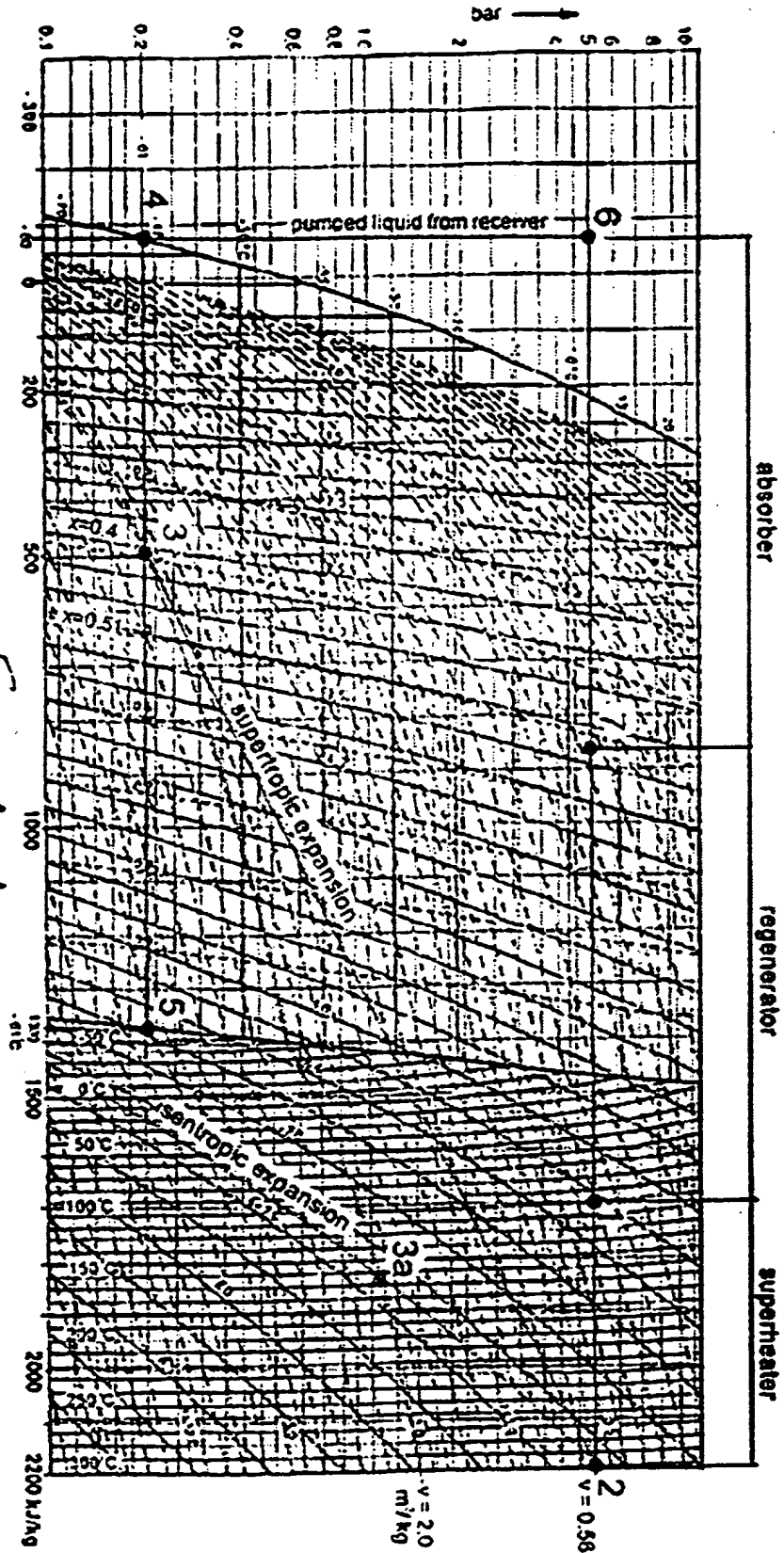


Fig. 19 A

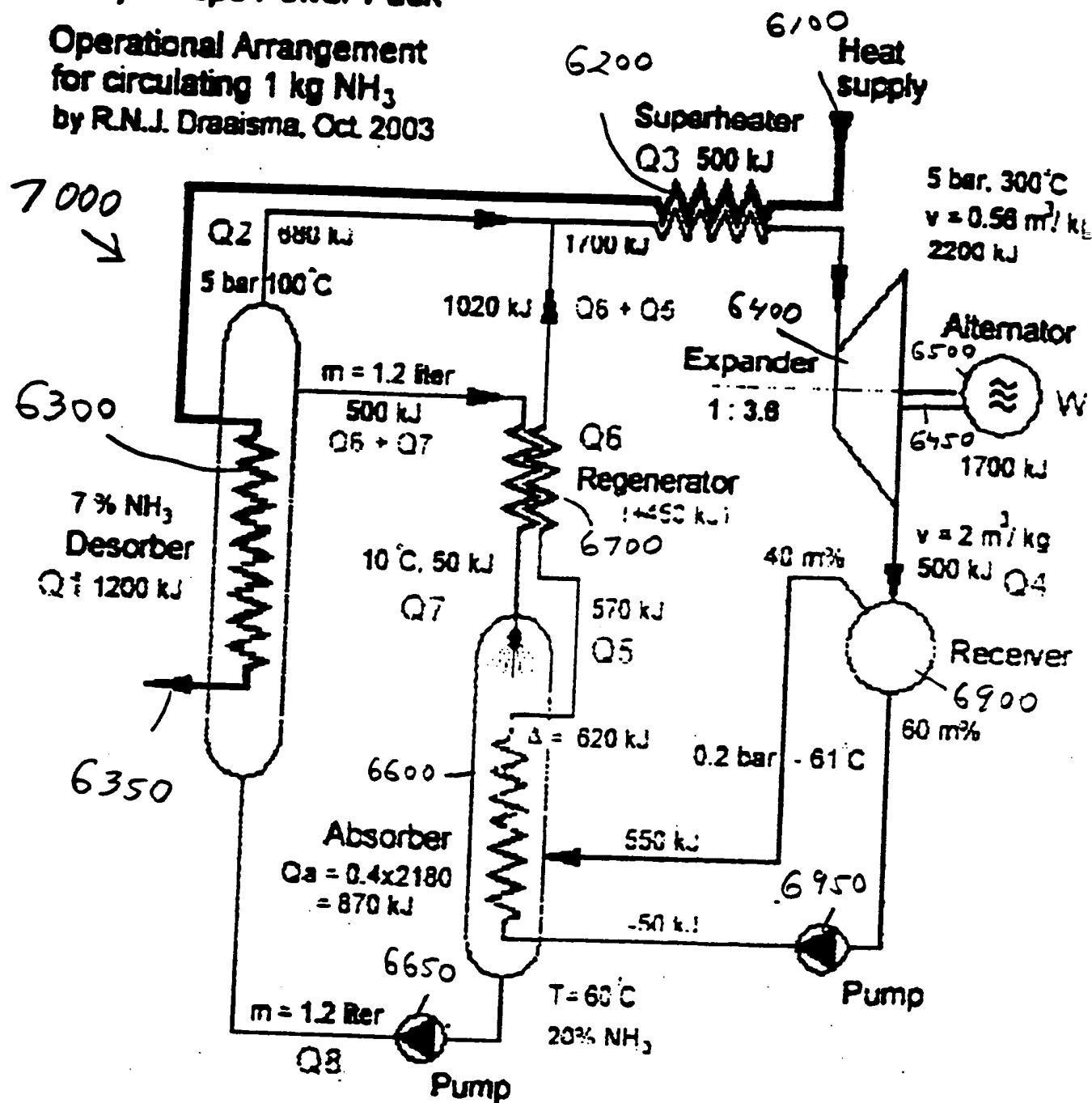
Pressure



Enthalpy  
Fig. 19B

# Supertropic Power Pack

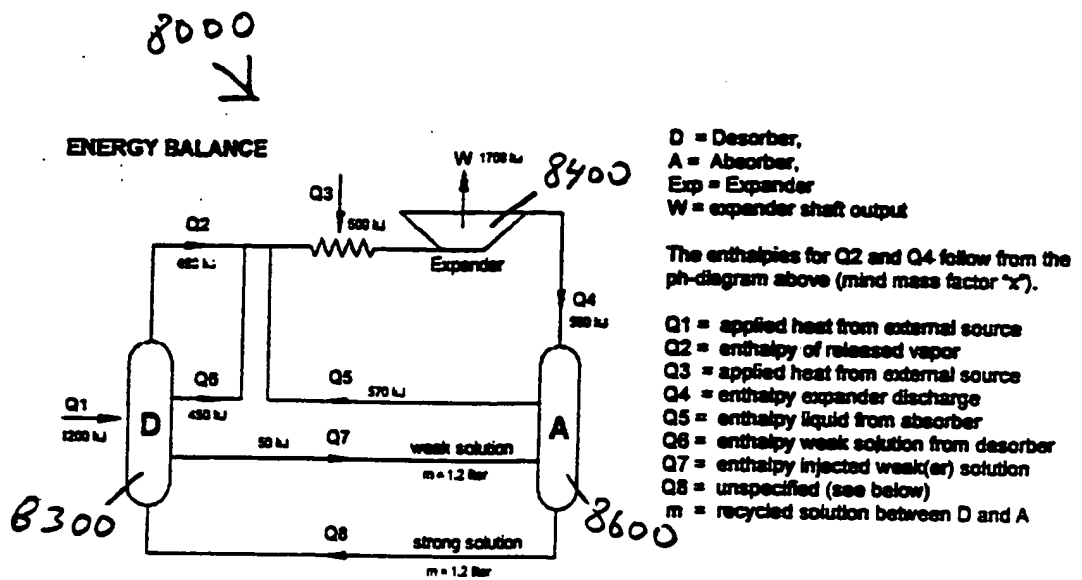
Operational Arrangement  
for circulating 1 kg  $\text{NH}_3$   
by R.N.J. Draaisma, Oct 2003



Note. If the above is per second, the  
alternator output = 1700 kW (ideal case)

Blue figures. recirculated liquid  
Red figures. recirculated gas

Fig. 20



Balance Conditions:

$$\begin{aligned} D_{in} &= Q1 + Q8 & D_{out} &= Q2 + Q6 + Q7 & EXP_{in} &= Q2 + Q6 + Q5 + Q3 \\ A_{in} &= Q4 + Q7 & A_{out} &= Q5 + Q8 & EXP_{out} &= Q4 \end{aligned}$$

$$W = Q1 + Q3 \quad (1)$$

$$EXP_{in} - EXP_{out} = Q2 + Q6 + Q5 + Q3 - Q4 = W = Q1 + Q3 \quad (2)$$

$$Q1 = Q2 + Q6 + Q5 - Q4 \quad (3)$$

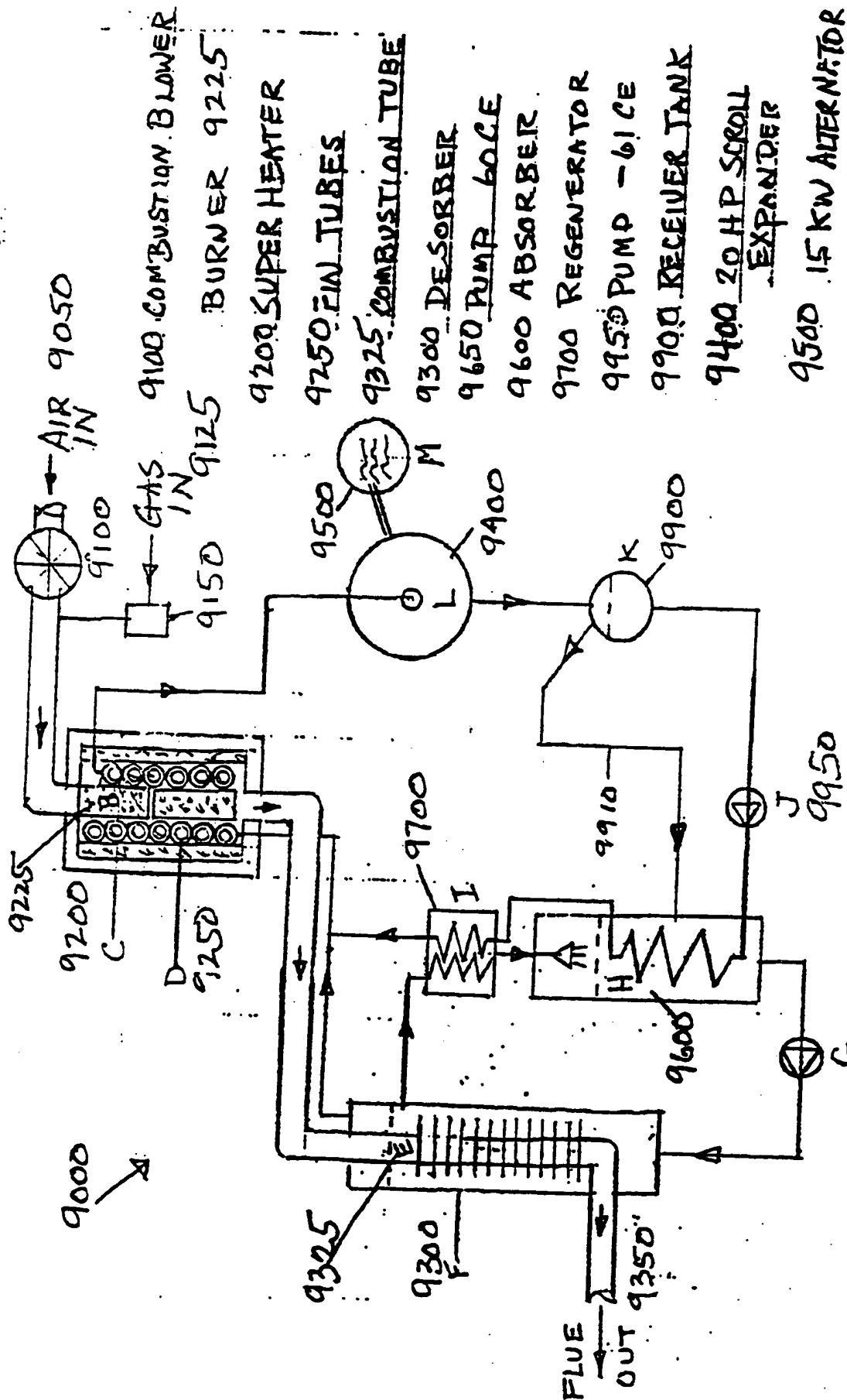
$$D_{in} - D_{out} = Q1 + Q8 - Q2 - Q6 - Q7 \quad (4)$$

$$(3 \text{ \& } 4 \text{ combined, eliminating } Q1) \rightarrow D_{in} - D_{out} = Q5 - Q4 + Q8 - Q7 \quad (5)$$

$$-(A_{in} - A_{out}) = Q5 - Q4 + Q8 - Q7 \quad (6)$$

**Fig. 28**





SUPERTROPE  
PACKAGE

FIG 22